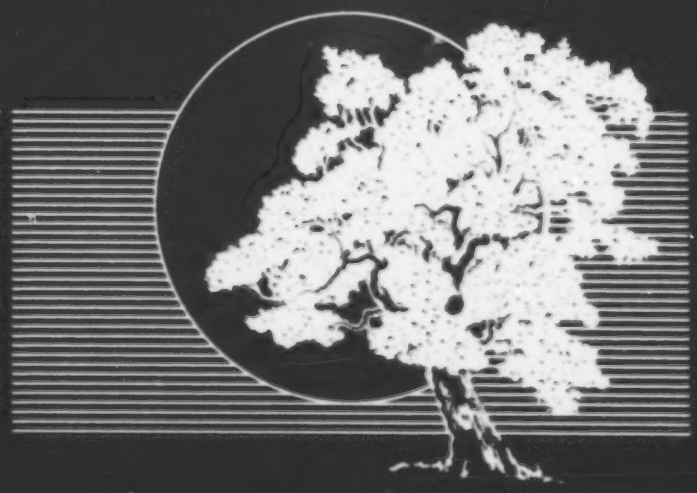
GERIATRIC TRAINING CURRICULUM FOR PUBLIC HEALTH PROFESSIONALS

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES · Public Health Service · Health Resources and Services Administration



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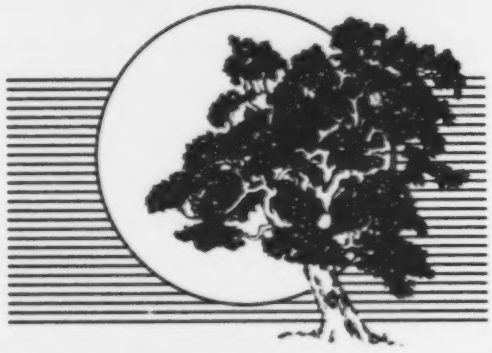

September 1990

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INTRODUCTION TO
THE GERIATRIC TRAINING CURRICULUM
FOR PUBLIC HEALTH PROFESSIONALS

The role of the public health professional has undergone a tremendous evolution during the last century. In its infancy, public health practice focused on attempts to prevent and control outbreaks of devastating infectious diseases, primarily in growing urban centers. Now, the field of public health encompasses epidemiology and biostatistics, nutrition, environmental sciences, planning and administration, occupational health and safety, education and prevention, and includes aspects of social work, law, financing, and public policy. The public health professional is required to become an expert on each new issue or policy area that affects the public's health and safety. In recent years, one of the crucial issues that has demanded increasing attention from public health officials, as well as other health professionals is the "greying of America," the aging of the American population.

As the number and percentage of the U.S. population over the age of 65 increases, from approximately 25 million at present to approximately 35 million in the year 2000 and 55 million in 2035, the demands on the health care system will increase. The fastest growing segment of the population is the "oldest old," those over the age of 85, who use a far greater number of hospital bed days, nursing home beds, and other services than other adult cohorts.

Skyrocketing Medicare costs and associated cost containment efforts, and the crisis in the provision and financing of catastrophic and long-term care are issues that have captured the public's attention. Public health officials must respond to these and other less publicized issues of service planning and coordination, education and wellness programs, special nutritional programs, and support programs for families.

The Bureau of Health Professions, Health Resources and Services Administration (HRSA) of the U.S. Public Health Service has addressed the need for geriatric education in schools and programs of public health for more than a decade. In Fiscal Year 1979, the Bureau funded 27 universities and colleges to develop multidisciplinary geriatric curricula for the health professions. One of these grantees was a School of Public Health; other grantees included public health in their multidisciplinary activities. Although this three-year grant program was terminated after its second year due to Congressional funding constraints, there was evidence of considerable impact on the

grantee institutions. Many implemented new courses; 17 departments in the 27 grantee institutions retained newly required courses in geriatrics three years after the termination of the grant period.

More recently, the Bureau has engaged in a major effort to improve training through its Geriatric Education Center (GEC) Program, which supports 31 "regional resource centers" that are designed to train faculty in geriatrics, as well as provide geriatrics information and assistance in a defined geographic area. Some of these programs are housed in Schools of Public Health, while others include public health faculty in their training programs. In addition to developing curricula of their own, the GECs also prepare inventories of geriatric curricula at other institutions in their geographic target areas.

An informal assessment undertaken by the Bureau in 1987 generated the concensus that despite these efforts, little geriatric training was focusing on practicing public health professionals. It is specifically this cadre of personnel who will be expected to respond to the projected rapid increase in the population of older adults through planning, implementation, and evaluation of geriatric health care programs.

Consequently, to meet the geriatric training needs of practicing health professionals, the Bureau contracted with Technical Resources, Inc. (TRI) to develop and test an intensive short-term curriculum, designed to complement the efforts of the existing Geriatric Education Centers (GECs). This curriculum is intended for use by the GECs and other training providers to motivate public health professionals to become geriatric resources in their communities, primarily through state and local public health departments.

The TRI project began with the intent to build upon the curricula that have been developed for public health and other health professionals to design an intensive training program that will enable public health professionals to better plan for and meet the needs of the elderly. TRI's task was to produce a self-contained curriculum that was of topical relevance to practicing professionals, and user friendly from the perspective of trainers or workshop facilitators. A modular training format was designed because of its inherent flexibility and adaptability to the diverse work environments of practicing public health personnel. In addition, the modular approach is amenable to the individualized learning style preferences of adult trainees, some of whom prefer heavily didactic training in short, intensive bursts, while others prefer full-day workshops that are highly interactive.

Two features of the Geriatric Training Curriculum bear special mention. Each of the five training modules that comprise the Geriatric Training Curriculum contains a listing of relevant resources from which training facilitators, as well as public health practitioners, can obtain up-to-date information on pertinent aging-related issues. Secondly, the training content is designed as a holistic, interdisciplinary approach to aging studies cast in terms of a pragmatic, problem-focused orientation, which evolved from the responses of public health professionals to a needs assessment that queried their geriatric training requirements.

CURRICULUM MATERIALS

The Geriatric Training Curriculum is comprised of five modules. The first module, *Aging: Demography, Biology, and Epidemiology*, describes current and future trends in the U.S. population with respect to aging. Four selected population characteristics (i.e., gender, race and ethnicity, marital status and living arrangements, and economic factors) are detailed. The biology of aging section distinguishes normal aspects of aging from pathological, and considers three major theories of aging (i.e., the free-radical, immune, and neuro-endocrine). Lastly, the module presents an overview of epidemiology as a systematic approach to determining patterns of disease, injury, and death, and planning for delivery of health care services.

The second module, *Psychosocial Issues That Affect Older Adults and Their Caregivers*, examines society's perceptions of the elderly in light of our heavily youth-oriented culture and provides values clarification regarding ageism. The module also identifies how the health care delivery system for the elderly is affected by health care practitioner bias against the elderly. In addition, it delineates emotional responses of the elderly to aging, responses to crises, symptoms of organic brain disorders, and reactions to victimization. Finally, this module presents an approach for public health intervention in attending to the psychological needs of the elderly and the support requirements of caregivers.

The third module, *Financing of Health Care for Older Adults*, is designed to familiarize public health professionals and others concerned with providing health care services to older adults with the range of public and private financing mechanisms currently available or anticipated in the near term. The module presents a brief review of health care expenditures and trends that have major fiscal implications. Medicare, Catastrophic Care, and Medicaid Program coverage are described, as are the

general trends in private insurance (Medigap and LTC). The need for long-term care coverage is explored, based upon a financial model of health risk. Current policy and possible future initiatives designed to meet the growing need for protection against financial devastation are identified.

The fourth module, *Continuum of Care Services for Older Adults*, reviews the demographic trends that impact the need for a continuum of care, particularly chronic care, services. The basic concept of this module is that the elderly require a diverse array of medical, social, and psychological treatment and support services that must be integrated and coordinated to meet individual needs, as these change over time. In addition, the module describes the nature of both long-term care and chronic illness as these shape the need for a coordinated, comprehensive system of service delivery.

The training examines programs that are desirable components of a continuum of services offered in the home, in the community, at congregate housing, and in institutional settings. Public health professionals are encouraged to examine the appropriate role of their agency/organization in implementing such programs and/or networking to ensure the delivery, administration, funding, etc., of such services.

The last module, *Health Promotion for the Older Adult*, considers the health status and demographic characteristics of the older adult population as these impact the development of responsive programming. Research findings and Federal planning initiatives that set the stage for the development of health promotion programming for the elderly are presented. A conceptual discussion of health, wellness, and health promotion as these apply to older adults is included, as is a phased approach to planning, implementing, and evaluating health promotion programs. The module also outlines several nationally known health promotion programs, and details the key common components of their success.

Each module contains seven sections, as detailed below:

- **Introduction** -- This section presents a brief narrative describing the purpose of the module, together with information for the instructor, including a general description of the organization of the remainder of the module and some generic recommendations for training.

- **Overview** -- This section presents a schematic outline of each training topic, including time required for the didactic session and any interactive exercises, training objectives, listings of relevant overheads and handouts, and indication of special preparation requirements, if any. This section concludes with a bibliography that constitutes the literature referenced within the module.

- **Training Content** -- Presented in two-column format, this section contains the substantive content that serves as a training script, together with strategic guidance for conducting training activities, such as interactive exercises.

- **Overheads** -- This section contains hard copies from which transparencies or slides can be produced. In addition, this section may be reproduced for distribution to trainees as an aid in note taking.

- **Handouts** -- This section contains master copies of the handouts, which have been developed to support and enrich the training experience. Typically, these materials either (i) present current data or (ii) form the basis for interactive training activities.

- **Resources** -- This section presents pertinent information on relevant Federal agencies, private organizations, and media resources from which up-to-date information can be obtained. Facilitators should contact appropriate resources to update the training content for each session, as necessary. The section may also be reproduced in hard copy for distribution to training participants.

- **Readings** -- Each module contains relevant readings that should be reviewed by the facilitator in advance of training. Such materials may be duplicated for distribution to training participants, prior to, or at the conclusion of, the training session.

As a result of a needs assessment that was performed prior to undertaking the design of this material, the curriculum developers were cognizant of public health professionals' interests in the geriatric arena, as well as their concerns that training be pragmatic and practicable, given existing and projected constraints on personnel, time, budget lines, and other crucial resource considerations. The use of these materials will permit the skilled trainer to meet the needs of public health department personnel for aging-related information through pre- or in-service training in any or all of the topics subsumed by this curriculum. TRI has employed a modular approach to facilitate training sessions of short duration that may be (i) conducted as a series of brief sessions, such as lunchtime seminars, over a period of time, or (ii) merged together to form half- or full-day intensive training workshops. Further, since these materials represent a fully-contained training package, this curriculum can be presented at minimal cost to the sponsoring organization, but at great benefit to public health professionals, who have expressed interest in the selected issues.

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Appendix A: Sample Pilot Test Evaluation

GERIATRIC TRAINING CURRICULUM FOR PUBLIC HEALTH PROFESSIONALS

AGING: DEMOGRAPHY, BIOLOGY AND EPIDEMIOLOGY

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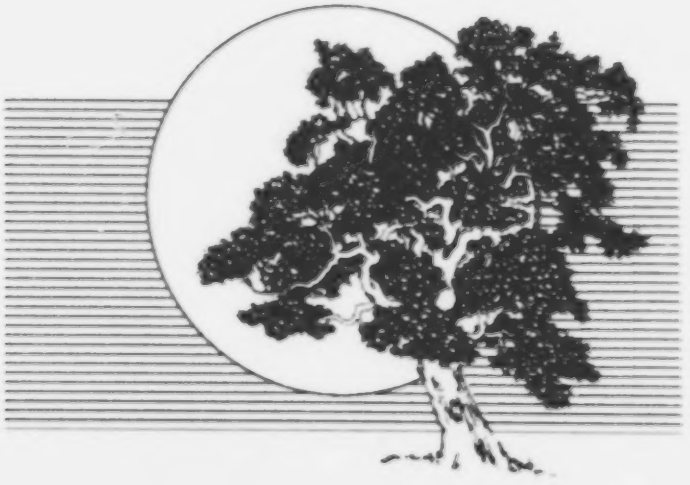

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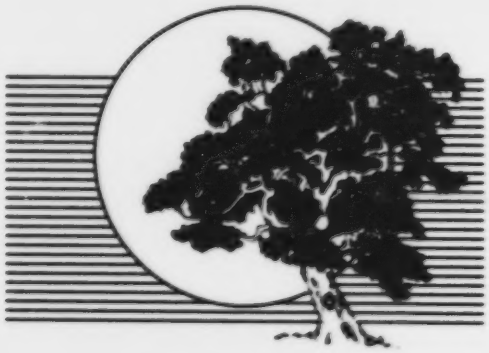
AGING: DEMOGRAPHY, BIOLOGY AND EPIDEMIOLOGY



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ACKNOWLEDGEMENTS

The Geriatric Training Curriculum for Public Health Professionals represents the contributions of many individuals, whose efforts shaped various stages of the project and enriched the final product. We genuinely appreciate the expertise provided by these persons, and wish to acknowledge their unique contributions.

Mr. Ronald Merrill, Government Project Officer for the Bureau of Health Professions, recognized the need for public health professionals to acquire the relevant resources, skills, and attitudes that would enable them to serve as repositories of geriatric information for their agencies and local communities. In addition to envisioning the original scope, process, and content of a modular geriatric training institute, Mr. Merrill patiently worked with the project staff and Advisory Panel through the long process of conducting a needs assessment, selecting topics, designing a draft curriculum, pilot testing, revising the draft for review by content experts, and producing a final document. His sound advice and high level of commitment have been greatly appreciated.

The Advisory Panel, chaired by Dr. Phil Weiler, assisted in the design of the needs assessment, as well as the selection of topics for inclusion in the curriculum. Several of the members of the Advisory Panel served as content experts for the review of draft materials. Their willingness to share their insights, knowledge, and time guided the evolution of this project and contributed a keen sense of direction to the effort.

In addition, we are appreciative of the many professionals and staff in public health departments, as well as aging-network organization and agencies, whose observations during the needs assessment phase of this project helped us refine an operational strategy for curriculum development.

Special thanks are due the South Texas Geriatric Education Center (STGEC) at the University of Texas Health Science Center at San Antonio (UTHSCSA) under whose auspices the pilot test was conducted. We are indebted to Dr. Michele J. Saunders (STGEC Project Director and Director of Education), Ms. Ruth A. Freiburger (STGEC Education Specialist), and Ms. Carolyn E. Marshall (STGEC Community Education Coordinator) for their enthusiastic support, sage advise, and administrative skills in organizing the pilot test, coordinating the myriad details, and identifying both faculty to serve as trainers during the pilot test and potential participants. Dr. Saunders, Ms. Freiburger, and Ms. Marshall also reviewed and critiqued the five training modules, and served as facilitators for several sessions of the Geriatric Training Institute (GTI) for Public Health Professionals. We also wish to thank Dr. Robert Oseasohn, Dr. Mary Ann Matteson, Dr. David Warner, and Dr. Myron Shank for facilitating sessions of the pilot test. The guidance provided by members of the GTI faculty, and the evaluations submitted by participants, resulted in revisions that have strengthened the final product.

The magnitude of a project of this nature requires the energies and talents of many individuals oriented toward a common goal. The Technical Resources, Inc. (TRI) project staff contributed the combined expertise of diverse disciplines to generate a comprehensive, practical training vehicle. As co-authors of several modules, Ms. Rosalind P. Brannigan and Mr. Peter J. Pizzolongo provided high-quality substantive content, creative approaches, and unflagging senses of humor integral to both the process and the product.

Sonja Anderson, Naomi Weisman, and Gary Turner provided invaluable logistics support for conferences, meetings, and the pilot test. Norma Jean Miller, Barbara DiLima, Daisy Mendizabal, Belina Nagy, and Karen Suit offered suggestions on layout and served as word processing staff for correspondance and manuscripts, remaining dedicated throughout numerous iterations of the curriculum. Jeff Baughman, Cherie Phillips, Jennifer Fringer, Lilia Arbona, and Bill Howard provided graphic materials for conferences, meetings, and the pilot test.

Last, but not least, the efforts of Ilyne Miller, administrative assistant, and Suzanne Thomas, contracts administrator, were vital to the smooth performance of this project.

Joel A. Todd
Project Director

Shelli B. Rossman
Project Manager

PREFACE

The Geriatric Training Curriculum for Public Health Professionals was developed by Technical Resources, Inc. (TRI) for the Bureau of Health Professions, Health Resources and Services Administration, Public Health Service, U.S. Department of Health and Human Services. The curriculum has been designed for mid- and senior-level practicing public health professionals, primarily employed in state and local Departments of Public Health. The training materials have been designed to permit these professionals, as well as representatives of aging-related networks, to broaden their understanding of aging and the needs of the older adult so that they may serve as geriatric/gerontologic resources in their communities.

It is the intent of the Bureau and TRI that training sessions conducted with these materials be facilitated by persons who are experienced trainers, as well as content experts in the areas for which they provide training. The curriculum is fully self-contained. It comprises all the written materials and instructions necessary to prepare and conduct this training. In developing these materials, we have anticipated that facilitators will want to present updated information to remain current in the field; we have included suggestions for enhancing the topical relevance of the training pieces, together with suggestions for where to obtain state-of-the-art data.

CURRICULUM MATERIALS

The Geriatric Training Curriculum is comprised of five modules:

- Aging: Demography, Biology, and Epidemiology.
- Psychosocial Issues Affecting Older Adults and Their Caregivers.
- Financing the Health Care of Older Adults.
- Continuum of Care Services for Older Adults.
- Health Promotion for Older Adults.

Each module can be presented independent of the others. However, if the curriculum is utilized in its entirety, it is recommended that the aforementioned order be preserved to permit trainees to incorporate a foundation in concepts basic to an understanding of aging, as well to clarify

their own values, prior to examining the complexities of financing, service delivery, and health promotion/disease prevention issues.

All of the modules have been organized utilizing a seven-section format, as detailed below:

- **Introduction** -- This section presents a brief narrative describing the purpose of the module, together with information for the instructor, including a general description of the organization of the remainder of the module and some generic recommendations for training.

- **Overview** -- This section presents a schematic outline of each training topic, including time required for the didactic session and any interactive exercises, training objectives, listings of relevant overheads and handouts, and indication of special preparation requirements, if any. This section concludes with a bibliography that constitutes the literature referenced within the module.

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As a result of a needs assessment that was performed prior to undertaking the design of this material, the curriculum developers were cognizant of public health professionals' interests in the geriatric arena, as well as their concerns that training be pragmatic and practicable, given existing and projected constraints on personnel, time, budget lines, and other crucial resource considerations. The use of these materials will permit the skilled trainer to meet the needs of public health department personnel for aging-related information through pre- or in-service training in any or all

of the topics subsumed by this curriculum. TRI has employed a modular approach to facilitate training sessions of short duration that may be (i) conducted as a series of brief sessions, such as lunchtime seminars, over a period of time, or (ii) merged together to form half- or full-day intensive training workshops. Further, since these materials represent a fully-contained training package, this curriculum can be presented at minimal cost to the sponsoring organization, but at great benefit to public health professionals, who have expressed interest in the selected issues.

DEVELOPMENT OF THE CURRICULUM

The TRI project staff began the research for the curriculum during the Fall of 1987. Early project activities included:

A. **Project Start-Up**

- Discussions with Ronald B. Merrill, M.H.A., Government Project Officer, to refine the strategy that would serve as the blueprint for action and day-to-day progress. A six-pronged strategy for analysis of geriatric education resources was implemented as detailed below.

B. **Phase One: Strategy**

- Educational Efforts of Professional Associations and Organizations. Discussions were held with associations that address issues concerning the elderly to ascertain the extent and nature of programs under their domain that could be applied to satisfy the training needs of public health professionals. The following organizations were contacted:

  - American Association of Retired Persons (AARP)
  - American Medical Association (AMA)
  - American Geriatric Society (AGS)
  - Association for Gerontology in Higher Education (AGHE)
  - American Bar Association (ABA)
  - National Council on Aging (NCOA)
  - Gerontological Society of America (GSA)
  - National Senior Citizens Law Center
  - American Public Health Association (APHA)
  - Association of Schools of Public Health
  - Association of State and Territorial Health Officials (ASTHO)
  - National Association of County Health Officials (NACHO)
  - U.S. Conference of Local Health Officers (USCLO).

- Geriatric/Gerontologic Curricula in Schools of Public Health. An assessment of geriatric/gerontologic curricula in schools of public health was undertaken. In 1985, the Association of the Schools of Public Health (ASPH) compiled a comprehensive list of geriatric and gerontologic courses offered at all twenty-three school of public health in the U.S. TRI used this report, *Gerontology Programs and Curricula in U.S. Schools of Public*

Health (Judith H. Magee, June 1985) to analyze training opportunities and content areas offered to students of public health. TRI randomly contacted approximately half of these institutions if they had indicated plans for curriculum expansion during the 1985 ASPH Survey.

Content analysis of the various curricula found that many of the schools of public health have developed discrete courses devoted to health care of the aged, although some schools merely incorporate gerontologic/geriatric material into existing courses.

- Geriatric Education Center Resources. Analysis of the training offered by the Bureau of Health Professions-funded Geriatric Education Centers (GECs), nationwide, permitted TRI to identify a number of existing curriculum modules and/or bibiographic resource listings that were obtained and assessed for relevance to the target training audience. In all, twenty-five curriculum modules were subjected to content analysis, focusing on the target audience for the information, scope of the course offering, topics subsumed, and training techniques employed.

- Review of Literature. Geriatric/gerontologic and education/training literature pertinent to public health professionals was reviewed. The TRI staff performed an exhaustive review of the following journals from 1985 to the present:

  - *American Journal of Public Health*
  - *Geriatrics*
  - *Gerontology and Geriatrics Education*
  - *Health Education*
  - *Health Education Quarterly*
  - *The Gerontologist.*

  In addition, numerous monographs and relevant articles from other health-related journals were also reviewed. A working bibliography of materials reviewed at that time has been included at the end of this section.

- Preliminary Needs Assessment. TRI contacted public health professionals whose agencies serve elderly populations. State, regional, county, and urban health department personnel from jurisdictions in California, Virginia, New York City, and the District of Columbia provided information on their current levels of services, as well as the training needs of departmental staff.

- Staff Development Activities. TRI project staff attended several conferences and symposia, including:

  - The Gerontological Society of America Annual Meeting
  - The Ohio Valley Appalachia Region (OVAR) One-Week Summer Intensive
  - The Amerian Society on Agency Annual Conference.

- Advisory Panel. An advisory group, comprised of national experts representing the professions of public health, medicine, epidemiology, ethics and law, health education, health administration, and geriatrics/gerontology, was empaneled. The Advisory Panel members were drawn from universities, public health departments at state and local levels, Geriatric Education Centers, and relevant associations. Representatives of appropriate Federal agencies served as resource representatives, augmenting the considerable expertise

of the Advisory Panel membership. A two-day meeting was convened to focus curriculum development through selection of topics for inclusion in the training, and discussion of recommended training resources and approaches. The meeting was attended by:

Panel Members

- Phil Weiler, M.D., M.P.H., Panel Chairperson
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  School of Public Health

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  Director of Gerontology
  University of Utah

- Rose Dobrof, D.S.W.
  Hunter/Mt. Sinai Geriatric Education Center
  Brookdale Center on Aging of Hunter College, CUNY

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  State of Iowa

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  Health Gerontology
  School of Public Health
  University of Michigan

- Jane Johnston
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  University of Minnesota

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  Chief, Social Science Research on Aging
  National Institute of Aging

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- Shelli B. Rossman, M.A.
  Project Manager

- Rosalind Brannigan, M.P.H.
  Research Associate

- Peter J. Pizzolongo, M.S.
  Senior Associate

C. **Phase Two: Targeted Needs Assessment**

- Following the Advisory Panel meeting, TRI designed and implemented a strategy for a needs assessment and a discussion guide.

- TRI staff conducted telephone conversations at the state and county, as well as city, level with staff of public health departments in 11 states and the District of Columbia. Contacts included health commissioners; epidemiologists; health department training specialists; physicians and nurses operating geriatric clinics; and chiefs of such administrative offices as long-term care, health planning and development, health promotion, community and rural health, and chronic diseases. In addition, site visits were made to several public health departments at both the state and local levels in Maryland to meet with cognizant personnel and actually obtain a first-hand exposure to daily routines. TRI staff also spoke with representatives of Offices on Aging at both state and local levels, by phone and in person, to determine their perspectives on the geriatric training needs of public health department personnel. Needs assessment respondents described a number of activities undertaken by public health, including assessment and treatment services provided by health centers and specialized clinics, adolescent pregnancy prevention programs, home health programs, geriatric programs, and mental health and addiction programs.

- In general, respondents who had oversight responsibilities for on-going geriatric programs/services were most able to pinpoint training needs or issues they felt required further attention. Training areas identified included information about effective health promotion programs, Medicare/Medicaid/Catastrophic care coverage, local linkages and continuum of care issues, nutrition, pharmacologic issues, and health education for fitness/exercise programs.

D. **Phase Three: Curriculum Design**

- TRI, in consultation with the Government Project Officer, developed a curriculum outline that blended the topics suggested by the Advisory Panel with those that emerged as a result of the needs assessment. Particular attention was paid to selecting issues that would not only attract professionals in public health departments, but also those in related agencies, such as Offices on Aging.

- The first draft of the Geriatric Training Curriculum was pilot tested in July 1989 in a three-day-intensive Geriatric Training Institute under the auspices of the South Texas Geriatric Education Center in San Antonio, Texas. Eighteen participants, representing the Texas Department of Public Health at state and regional levels or from in-state area agencies on aging, attended the pilot test.

- Two activities were incorporated in the pilot strategy to enhance curriculum development:

  - The modules were implemented in an actual training setting by facilitators who had not been involved in the curriculum development process. This approach was used to obtain an objective assessment of whether the packages were truly self-contained and user friendly. The facilitators, who are listed below, were given the opportunity to critique content and form of all materials.

  - Pilot test participants completed evaluations of each training session. A sample of the evaluation instrument is presented in Appendix A.

Geriatric Training Institute Faculty

-- Michele J. Saunders, D.M.D., M.S., M.P.H.
Director, South Texas Geriataric Education Center

Sessions: Demographics, Biology of Aging, Continuum of Care, Health Promotion

-- Robert Oseasohn, M.D.
Professor and Associate Dean
School of Public Health at Houston
MPH Program at San Antonio

Session: Epidemiology

-- Mary Ann Matteson, Ph.D.
Assistant Professor
School of Nursing
University of Texas Health Science Center at San Antonio

Session: Psychosocial

-- David Warner, Ph.D.
LBJ School of Public Affairs

Session: Financing

-- Ruth A. Freiburger, M.A.
Education Specialist
South Texas Geriatric Education Center

Session: Health Promotion

-- Carolyn E. Marshall, M.P.H.
Community Education Coordinator
South Texas Geriatric Education Center

Session: Health Promotion

-- Myron Shank, M.D.
Division of Diabetes
Department of Medicine

Session: Health Promotion

- Based upon the critiques of the facilitators, the evaluations of the participants, and the observations of the TRI project staff and Government Project Officer that were recorded during the pilot test, the initial draft curriculum was revised and strengthened.

- Subsequently, the modules were reviewed by Advisory Panel members, whose critiques, together with that of the Government Project Officer, during late Summer, 1989, guided the final revision of all materials.

TIPS FOR FACILITATORS

To ensure effective training sessions designed to meet the needs of participants, facilitators should address the following issues.

Sensitivity of Language

The language used to develop programs for older adults is an important part of helping individuals empower themselves to deal with the aging process. Language is a symbol of sensitivity to a group's strengths, needs, and interests. Therefore, facilitators must select words carefully when conducting training.

Project staff have chosen the words "Black" and "Hispanic" to identify members of these racial/ethnic groups (consistent with the terminology presented in National Center for Health Statistics data and with the Centers for Disease Control classifications). However, identifiers most appropriate for the region in which training is conducted (e.g., "African-American," "Latino," "Chicano") should be used during the training session. Facilitators should contact racial/ethnic group leaders from the trainees' jurisdiction(s) prior to presenting the workshops to ensure that the appropriate identifiers are used.

Similarly, the term "elderly" has a long history of referring to adults, aged 65 and older. More recently, demographic shifts have underscored the heterogeneity of this group, leading to the recognition that at least two sub-sets exist within the 65+ cohort: the "young-old" and the "old-old" (who typically are frailer individuals). Many of the young-old are wary of the designation of "elderly" since they perceive it as conferring a status of infirmity to which they do not wish to lay claim. "Elderly" is still linguistically viable, but one should be alert to an audience's comfort and responsiveness when using terms that may be value laden.

In general, it is important not to stereotype individuals when discussing aging-related issues. Urban dwellers are not necessarily more socially conscious, modern, and formally educated than rural dwellers. Individuals who fall within the same age group may not share anything else in common except chronological age. Training sessions can, and should, be strengthened by discussing stereotypes and prejudices with representatives of appropriate groups, at the local level. Information about the manifestations of such attitudes and behaviors in the trainees' jurisdiction(s) can be integrated into the training content where appropriate.

Needs Assessment

Prior to scheduling and conducting training sessions, facilitators should assess the knowledge, skill, and attitude training needs of participants. Using surveys, pre-tests, and/or interviews, the specific needs of participants can be identified. Facilitators can then schedule sessions appropriately and modify training outlines, as necessary, to match the strengths, interests, and needs of the trainees.

An advantage of the modular approach of this Geriatric Training Curriculum is that it not only contains suggestions for optional activities, but also has an inherent flexibility that permits facilitators to add to, delete from, or restructure the existing material to tailor it to the specific needs of a select group.

Class Size

This curriculum was designed to provide for interactive training. Therefore, a class size of 15 to 30 participants would be optimal.

Training Strategies

- **Lecture/Discussion** -- Facilitators should familiarize themselves sufficiently with the training outline scripts to avoid reading from the script during the training session. Add anecdotes pertinent to the trainees' jurisdiction(s) to strengthen these segments; the inclusion of humor in the form of cartoons or tasteful jokes is not only a good icebreaker, but also creates a positive climate for training. If time permits, encourage participants to ask questions during the lecture segments, or respond to questions at the conclusion of these segments.

- **Overheads** -- Facilitators should talk from the overheads and not read them verbatim. The right column in the training outline provides information relevant to each overhead. The use of a pointer during discussion of charts and graphs can greatly enhance the impact of the data.

- **Brainstorming** -- This training strategy allows participants to identify many responses to a question (e.g., "What do you think about the Catastrophic Care Coverage Act of 1988?"). Brainstorming is an appropriate strategy when a question has many "right answers" or possibly no "right answers" (an open-ended question). It is not appropriate for questions that have only one or a few "right answers." Facilitators should ask participants to respond to brainstorming questions without commenting negatively on the relative merits of each response; although information that is factually incorrect should be accurately restated so as to clarify misinformation and prevent its repetition.

- **Values Clarification** -- This strategy is used in the Psychosocial Issues module. Its purpose is to help trainees recognize how their own attitudes can influence decision making and planning, as well as treatment and care. This type of strategy works best when used in training situations of low threat, in which an individual can shift his or her attitudes without feeling defensive or threatened. Facilitators should approach this activity as an "off-the-record" discussion in as "judgment-free" an atmosphere as possible. The training outline for the Psychosocial Issues module includes objective information for facilitators to share with trainees at the conclusion of the values clarification activity.

- **Group Discussions** -- Most of the modules include group discussion activities. These activities are designed to tailor the lecture information to the needs in the trainees' jurisdiction(s). Each discussion activity is based on a series of written questions to which participants respond individually and/or within their groups. Some of the activities lead to a "debriefing" report from each group. The training outline provides questions for facilitating large group discussions at the conclusion of the small group activities.

The Geriatric Training Curriculum for Public Health Professionals can be a useful tool for increasing knowledge of geriatric/gerontologic issues and for developing the competencies to deal with older adults. The Bureau of Health Professions and TRI hope that training providers can incorporate this curriculum with other quality programs.

BIBLIOGRAPHY

1. Abramowitz, M. "Age and Economics--Should Expensive Procedures Be Limited on the Basis of Age?" *Washington Post*, January 26, 1988.

2. Ahmed, S.M., Kraft, I.A., Porter, D.M. "Attitudes of Different Professional Groups Toward Geriatric Patients," *Gerontology and Geriatrics Education*, 6(4):77-86, Summer 1986.

3. The Alzheimers's Disease Center and National Institute on Aging. *Q&A: Alzheimer's Disease*, NIH Pub. No. 85-1646, May 1985.

4. American Association of Retired Persons. *A Profile of Older Americans: 1985*, Washington, DC, 1985.

5. Applebaum, R.A. and Wilson, N.L. "Training Needs for Providing Case Management for the Long Term Care Client: Lessons from the National Channeling Demonstration," *The Gerontologist*, 28(2):172-176, 1988.

6. Arie, T.H.D. "Education in the Care of the Elderly," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):492-500, July-August 1985.

7. Austin, D.R. "Attitudes Toward Old Age: A Hierarchical Study," *The Gerontologist*, 25(4):431-434, 1985.

8. Author Unknown. "Long Term Care Program Promised," *The Nation's Health*, March 1988.

9. Author Unknown. "Medicare's Fiscal Dilemma," *The Urban Institute Policy and Research Report*, 18(1), Winter 1988.

10. Author Unknown. "State Health Reports," *The Nation's Health*, p. 14, January 1988.

11. Bass, S.A. "Symposium on Tomorrow's Able Elderly: Implications for Policy and Practice - Introduction," *The Gerontologist*, 27(4):403-404, 1987.

12. Bender, C. and Hart, J.P. "A Model for Health Promotion for the Rural Elderly," *The Gerontologist*, 27(2):139-142, 1987.

13. Berk, M.L. and Wilensky, G.R. "Health Care of the Poor Elderly: Supplementing Medicare," *The Gerontologist*, 25(3):311-314, 1985.

14. Berkman, L.F. "The Assessment of Social Networks and Social Support in the Elderly," *Journal of the American Geriatrics Society*, 31(12):743-749, December 1983.

15. Berman, S., Delancey, N., Gallagher, D., Atkins, P., and Graeber, M.P. "Respite Care: A Partnership Between a Veterans Administration Nursing Home and Families to Care for Frail Elders at Home," *The Gerontologist*, 27(5):581-584, 1987.

16. Berry, G.L., Smyer, M.A., and Lago, D. "State-Level Pharmaceutical Assistance Programs for the Elderly: A National Survey," *American Journal of Public Health*, 78(2), February 1988.

17. Besdine, R. "The Educational Utility of Comprehensive Functional Assessment in the Elderly," *Journal of the American Geriatrics Society*, 31(11):651-656, November 1983.

18. Besdine, R.W. *Observations on Geriatric Medicine*, DHEW Pub. No. (NIH) 79-162, National Institute on Aging, 1979.

19. Binstock, R.H. "Title III of the Older Americans Act: An Analysis and Proposal for the 1987 Reauthorization," *The Gerontologist*, 27(3):259-265, 1987.

20. Blazer, D. "Home Health Care: House Calls Revisited," *American Journal of Public Health*, 78(3):238-239, March 1988.

21. Blumenfield, S. "Gerontology Journal Club: A Continuing Education Modality for Experienced Social Workers in an Acute Hospital Setting," *The Gerontologist*, 25(1):11-14, 1985.

22. Branch, L.G., Wetle, T.L, Scherr, P.A., Cook, N.R., et al. "A Prospective Study of Incident Comprehensive Medical Home Care Use Among the Elderly," *American Journal of Public Health*, 78(3):255, March 1988.

23. Brody, S.J. "Strategic Planning: The Catastrophic Approach," *The Gerontologist*, 27(2):131-138, 1987.

24. Buchanan, J. and Santos, J.F. "A Report from an Interdisciplinary Conference on Mental Health and Aging," *Gerontology and Geriatrics Education*, 7(1):1-3, Fall 1986.

25. Burroughs, P., Young, J.E., Silverman, M., Ricci, E., Shore, B.K., Lago, D. "The Development and Evaluation of Training Standards for the Aging Network and Academia: II Summary of Project Products and the Process of Their Validation," *Gerontology and Geriatrics Education*, 7(2):47-54, Winter 1986.

26. Calkins, E. "Residency Training in Geriatric Medicine - 1984," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):534-, July-August 1985.

27. Capitman, J.A. "Community-Based Long-Term Care Models, Target Groups and Impacts on Service Use," *The Gerontologist*, 26(4):389-397, 1986.

28. Capitman, J.A., Arling, G., and Bowling, Cindi. "Public and Private Costs of Long-Term Care for Nursing Home Pre-Admission Screening Program Participants," *The Gerontologist*, 27(6):780-787, 1987.

29. Capitman, J.A., Haskins, B., and Bernstein, J. "Case Management Approaches in Coordinated Community-Oriented Long-Term Care Demonstrations," *The Gerontologist*, 26(4):398-404, 1986.

30. Castro, J. "Critical Condition," *Time*, p. 42, February 1, 1988.

31. Champlin, L. "Long-Term Care: Protecting the Elderly From Going Broke," *Geriatrics*, 43(4):96-102, 1988.

32. Chandler, J.T., Rachal, J.R., and Kazelskis, R. "Attitudes of Long-Term Care Nursing Personnel Toward the Elderly," *The Gerontologist*, 26(5):551-555, 1986.

33. Chappell, N.L. and Blandford, A.A. "Adult Day Care and Medical and Hospital Claims," *The Gerontologist*, 27(6):773-779, 1987.

34. Chen, Y-P. "Making Assets Out of Tomorrow's Elderly," *The Gerontologist*, 24(4):410-416, 1987.

35. Cherry, D.L. and Rafkins, M.J. "Adapting Day Care to the Needs of Adults with Dementia," *The Gerontologist*, 28(1):116-120, 1988.

36. Clark, P.G. "The Social Allocation of Health Care Resources: Ethical Dilemmas in Age-Group Competition," *The Gerontologist*, 25(2):119-125, 1985.

37. Cohen, M.A., Tell, E.J., Greenberg, J.N., and Wallack, S.S. "The Financial Capacity of the Elderly to Insure for Long-Term Care," *The Gerontologist*, 27(4):494-502, 1987.

38. Committee on Leadership for Academic Geriatric Medicine. "Report of the Institute of Medicine: Academic Geriatrics for the Year 2000," *Journal of the American Geriatrics Society*, 35(8):773-791, August 1987.

39. Cook, F.L. "A Symposium on Measuring Hardship Among Older Americans During the First Four Years of the Reagan Administration - Introduction," *The Gerontologist*, 26(1):25-26, 1986.

40. Cook, F.L. and Kramek, L.M. "Measuring Economic Hardship Among Older Americans," *The Gerontologist*, 26(1):38-47, 1986.

41. Doka, K.J. and Smith-Fraser, D. "The Goals of Master-level Gerontological Students: An Institutional Study," *Gerontology and Geriatrics*, 7(1)75-83, Fall 1986.

42. Doress, P.B. and Siegal, D.L. *Ourselves, Growing Older. Women Aging with Knowledge and Power*, Simon and Schuster, New York, 1987.

44. Drinka, T. and Ray, R.O. "An Investigation of Power in an Interdisciplinary Health Care Team," *Gerontology and Geriatrics Education*, 6(3):43-53, Spring 1986.

45. Eisdorfer, C. "Educating for Caring," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):573-579, July-August 1985.

46. Elster, S.K. "Introductory Remarks," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):469-470, July-August 1985.

47. Falcone, A. "Comprehensive Functional Assessment as an Administrative Tool," *Journal of the American Geriatrics Society*, 31(11):642-650, November 1983.

48. Famiglietti, R.A. "Meeting an Emergent Need in Curriculum Development: Aging and Developmental Disabilities," *Gerontology and Geriatrics Education*, 6(1):25-35, Fall 1985.

49. Fanelli, M.T. and Abernethy, M.M. "A Nutritional Questionnaire for Older Adults," *The Gerontologist*, 26(2):192-197, 1986.

50. Ford, A.B. "Looking After the Old Folks," *American Journal of Public Health*, 77(12):1499-1510, December 1987.

51. Freedman, M.L. "Medical Education in Geriatrics: Ethical and Social Concerns," *Symposium the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):501-505, July-August 1985.

52. Frongillo, E.A., Jr., Williamson, D.F., Roe, D., and Scholes, J. "Continuance of Elderly on Home-Delivered Meals Programs," *American Journal of Public Health*, 77(9), September 1987.

53. Geriatrics Panel and Discussion. "Practical Considerations in Managing Alzheimer's Disease: I," *Geriatrics*, 42(9):78-98, September 1987.

54. Geriatrics Panel and Discussion. "Practical Considerations in Managing Alzheimer's Disease: II," *Geriatrics*, 42(10):55-65, October 1987.

55. Gibbs, N.R. "Grays on the Go," *Time*, p. 66, February 22, 1988.

56. Granick, S. "Psychologic Assessment Technology for Geriatric Practice," *Journal of the American Geriatrics Society*, 31(12):728-742, December 1983.

57. Greene, M.G., Hoffman, S., Charon, R., and Adelman, R. "Psychosocial Concerns in the Medical Encounter: A Comparison of the Interactions of Doctors with Their Old and Young Patients," *The Gerontologist*, 27(2):164-168, 1987.

58. Grover, S., M.D., et al. "Impact of Medicare on Early Cancer Detection in the Elderly," *American Journal of Public Health*, 78(1):58-60, January 1988.

59. Gruca, J.A. "Three Perspectives on Curriculum Development in Gerontology," *Gerontology and Geriatrics Education*, 6(3):65-72, Spring 1986.

60. Hagestad, G.O. "Able Elderly in the Family Context: Changes, Chances, and Challenges," *The Gerontologist*, 27(4):417-422, 1987.

61. Harel, Z., Noelker, L., and Blake, B.F. "Comprehensive Services for the Aged: Theoretical and Empirical Perspectives," *The Gerontologist*, 25(6):644-649, 1985.

62. Havlik, R.J., Liu, B.M., Kovar, M.G., et al. "Health Statistics on Older Persons," National Center on Health Statistics, p. 1-77, 1986.

63. Hay, J. and Ernst, R. "The Economic Costs of Alzheimer's Disease," *American Journal of Public Health*, 77(9)1169-1175, September 1987.

64. Henig, R. "Can -or Should- We Conquer Aging," *Washington Post Health*, p. 10, November 24, 1987.

65. Henninger, J.L., Henninger, W.B., Morse, C.K., and Zweigenhaft, R.L. "Physicians' Awareness of Services for the Elderly," *Gerontology and Geriatrics Education*, 7(2):21-28, Winter 1986.

66. Hesse, K.A., Levkoff, S.E., Campion, E.W. "House Officers' Knowledge of Geriatric Health Policy: Are the Gatekeepers Learning the Rules?," *The Gerontologist*, 28(2):233-236, 1988.

67. Hickey, T. *Health and Aging*, Wadsworth, Inc., Belmont, CA, 1980.

68. Higbie, L. "To Understand the Aging Process: The Baltimore Longitudinal Study of the National Institute on Aging," NIH Pub. No. 80-134, August 1980.

69. Hing, E. *Use of Nursing Homes by the Elderly: Preliminary Data from the 1985 National Nursing Home Survey*, National Center for Health Statistics, No. 135. DHHS Pub. No. (PHS) 87-1200, Public Health Service, Hyattsville, MD.

70. Hofland, B.F., Kirby, William, T., Hennessy, M., Lawler, T., and Santos, J.F. "A National Media Awards Competition in Gerontology and Geriatrics," *Gerontology and Geriatrics Education*, 7(1):5-13, Fall 1986.

71. Hofland, B.F., Smyer, M.A., Wetle, T., Walter, Adrian R. "Linking Research and Practice: The Fellowship Program in Applied Gerontology," *The Gerontologist*, 27(1):39-45, 1987.

72. Hudson, R.B. "Tomorrow's Able Elders: Implications for the State," *The Gerontologist*, 24(4):405-409, 1987.

73. Johnson, J.E., III. "Geriatrics and Medical Education - Initiatives of the Association of American Medical Colleges," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):484-491, July-August 1985.

74. Kahn, R.L. "Productive Behavior: Assessment, Determinants, and Effects," *Journal of the American Geriatrics Society*, 31(12):750-757, December 1983.

75. Kane, R., Solomon, D., Beck, J., Keeler, E., and Kane, R. "The Future Need for Geriatric Manpower in the United States," *The New England Journal of Medicine*, 302(24):1327-1332, June 1980.

76. Kane, R.A., and Kane, R.L. *Assessing the Elderly: A Practical Guide to Measurement*, Lexington, Mass: Lexington Books, 1981.

77. Kapp, M. "Interprofessional Relationships in Geriatrics: Ethical and Legal Considerations," *The Gerontologist*, 27(5):547-552, 1987.

78. Karuza, J., Jr., Calkins, E., Duffey, J., and Feather, J. "Network in Aging: A Challenge, Model, and Evaluation," *The Gerontologist*, 28(2):147-155, 1988.

79. Katz, S. "Assessing Self-Maintenance: Activities of Daily Living, Mobility, and Instrumental Activities of Daily Living," *Journal of the American Geriatrics Society*, 31(12):721-727, December 1983.

80. Kim, P.K.H., Johnson, D.P., Su, L. "Education for Gerontological Social Workers: Problems and Prospects," *Gerontology and Geriatrics Education*, 6(4):69-76, Summer 1986.

81. Kosberg, J.I. "Preventing Elder Abuse: Identification of High Risk Factors Prior to Placement Decisions," *The Gerontologist*, 28(1):43-50, 1988.

82. Kroger, M.H., Papsidero, J.A., Isaacs, F., Jr., Gesten, F.C. "The Content of Textbooks in Geriatric Medicine: Some Directions for Improvement," *Gerontology and Geriatrics Education*, 7(1):37-53, Fall 1986.

83. Krout, J.A. "Rural-Urban Differences in Senior Center Activities and Services," *The Gerontologist*, 27(1):92-97, 1987.

84. Lago, D., Silverman, M., Eisele, F., Ricci, E., Britton, J. "The Development and Evaluation of Training Standards for the Aging Network and Academia: III. Conclusions and Implications," *Gerontology and Geriatrics*, 7(2):55-65, Winter 1986.

85. Lebowitz, B.D., Light, E., and Bailey, F. "Mental Health Center Services for the Elderly: The Impact of Coordination With Area Agencies on Aging," *The Gerontologist*, 27(6):699-702, 1987.

86. Leutz, W., Abrahams, R., Greenlick, M., Kane, R., Prottas, J. "Targeting Expanded Care to the Aged: Early SHMO Experience," *The Gerontologist*, 28(1):4-17, 1988.

87. Linsk, N.L, Keigher, S.M., and Osterbusch, S. "States' Policies Regarding Paid Family Care Giving," *The Gerontologist*, 28(2):204-212, 1988.

88. Lubomudrov, S. "Congressional Perceptions of the Elderly: The Use of Stereotypes in the Legislative Process," *The Gerontologist*, 27(1):77-81, 1987.

89. Ludman, E.K. and Newman, J.M. "Frail Elderly: Assessment of Nutrition Needs," *The Gerontologist*, 26(2):198-202, 1986.

90. Magee, J.H. *Gerontology Programs and Curricula in U.S. Schools of Public Health*, ASPH for HRSA, June 1985.

91. Michielutte, R., Diseker, R.A. "Health Care Providers' Perceptions of the Elderly and Level of Interest in Geriatrics as a Specialty," *Gerontology and Geriatrics Education*, 5(2):65-85, Winter 1984/85.

92. Miko, P.S. "College Students and Institutionalized Elderly: Attitudinal Effects of Interactive Contacts," *Gerontology and Geriatrics Education*, 6(3):37-42, Spring 1986.

93. Moon, M. "Impact of the Reagan Years on the Distribution of Income of the Elderly," *The Gerontologist*, 26(1):32-37, 1986.

94. Morris, R. "Concluding Remarks: Consequences of the Demographic Revolution," *The Gerontologist*, 27(4):423-424, 1987.

95. Mullins, L.C., McNicholas, N. "Loneliness Among the Elderly: Issues and Considerations for Professionals in Aging," *Gerontology and Geriatrics Education*, 7(1):55-65, Fall 1986.

96. National Advisory Council on Aging. *Our Future Selves. A Research Plan Toward Understanding Aging: Report of the Panel on Behavioral and Social Sciences Research*, NIH Pub. No. 80-1444, January 1980.

97. National Advisory Council on Aging. *Our Future Selves. A Research Plan Toward Understanding Aging: Report of the Panel on Research on Human Services and Delivery Systems*, NIH Pub. No. 80-1443, January 1980.

98. National Center for Health Statistics. "Aging in the Eighties, Age 65 Years and Over - Use of Community Services," *Advancedata*, 124:1-7, September 1986.

99. National Center for Health Statistics. "Use of Nursing Homes by the Elderly: Preliminary Data from the 1985 National Nursing Home Survey," *Advancedata*, 135:1-11, May 1987.

100. *National Institute on Aging*, NIH Pub. No. 83-1129, July 1983.

101. National Institute on Aging. *Age Page: Stroke: Prevention and Treatment*, DHHS, 1986.

102. National Institute on Aging. *Age Page: When You Need a Nursing Home*, DHHS, 1986.

103. National Institute on Aging. *Aging and Minorities*, GPO 885-273, 1981.

104. National Institute on Aging. *Changes: Research on Aging and the Aged*, NIH Pub. No. 81-85, October 1980.

105. National Institute on Aging. *Osteoporosis & Aging*, GPO 885-297, 1987.

106. National Institute on Aging. *Personnel for Health Needs of the Elderly Through the Year 2020*, September 1987.

107. National Institute on Aging. *Perspectives on Geriatric Medicine*, NIH Pub. No. 81-1924, October 1980.

108. National Institute on Aging. *Progress Report on Alzheimer Disease: Volume III*, NIH Pub. No. 86-2873, December 1986.

109. National Institute on Aging. *Special Report on Aging 1983*, NIH Pub. No. 83-2489, August 1983.

110. National Institute on Aging and Pfizer Pharmaceuticals. *Help Yourself to Good Health.*

111. National Institute on Aging Task Force. "Senility Reconsidered--Treatment Possibilities for Mental Impairment in the Elderly," *JAMA*, 244(3):259-263, 1980.

112. Netting, F.E, Wilson, C.C. "Current Legislation Concerning Life Care and Continuing Care Contracts," *The Gerontologist*, 27(5):645-651, 1987.

113. Nusberg, C. "Survey on International Course Content Related to Aging in the Curricula of American Higher Education," *Gerontology and Geriatrics Education*, 6(3):73-77, Spring 1986.

114. Oktay, J.S., Volland, P.J. "Foster Home Care for the Frail Elderly as an Alternative to Nursing Home Care: An Experimental Evaluation," *American Journal of Public Health*, 77(12):1505-1510, 1987.

115. Petchers, M.K., Milligan, S.E., "Access to Health Care in a Black Urban Elderly Population," *The Gerontologist*, 28(2):213-217, 1988.

116. Peterson, D.A. "Extent of Gerontology Instruction in American Institutions of Higher Education," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 1, Fall 1986.

117. Peterson, D.A. "Gerontology Courses," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 4, Spring 1987.

118. Peterson, D.A. "Gerontology Credentials," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 3, Spring 1987.

119. Peterson, D.A. "Organizational Structures of Gerontology Instructional Programs," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 2, Winter 1986/87.

120. Peterson, D.A. "Graduates' Perceptions of Gerontology Master's Degree Curricula," *Gerontology and Geriatrics Education*, 5(3):19-27, Spring 1985.

121. Pillemer, K, Finkelhor, D. "The Prevalence of Elder Abuse: A Random Sample Survey," *The Gerontologist*, 28(1):51-57, 1988.

122. Rick, S. "Hill Conferees Drafting 'Catastrophic' Health Deal," *Washington Post*, p. A6, March 1988.

123. Rick, S. "Shaking Up the System With Data for Consumers, Medicare Chief Hopes Initiatives Set Pattern," *Washington Post*, March 22, 1988.

124. Roden, J. "Aging and Health: Effects of the Sense of Control," *Science*, 33:1271-1275, September 1986.

125. Rossman, I. "Comprehensive Functional Assessment: A Commentary," *Journal of the American Geriatrics Society*, 31(12):763-765, December 1983.

126. Rubenstein, L. "The Chemical Effectiveness of Multidimensional Geriatric Assessments," *Journal of the American Geriatrics Society*, 31(12):758-762, December 1983.

127. Ruchlin, H.S. "Continuing Care Retirement Communities: An Analysis of Financial Viability and Health Care Coverage," *The Gerontologist*, 28(2):156-162, 1988.

128. Samuelson, R.J. "The Elderly Aren't Needy," *Newsweek*, March 21, 1988, p. 68.

129. Select Committee on Aging (House of Representatives): *America's Elderly at Risk*, July 1985.

130. Sharp, S.J.; Britton, J.H., Lazo, D., Ricci, E., Silverman, M. Shore, B.K., Young, J.E. "The Development and Evaluation of Training Standards for the Aging Network and Academia: I. Background and Rationale," *Gerontology and Geriatrics Education*, 7(2):39-45, Winter 1986.

131. Silverman, M., Shore, B.K., Jewell, I.K. "The Development and Evaluation of Training Standards for the Aging Network and Academia: IV: One Year Follow-Up Evaluation of the Implementation of the Training Standards," *Gerontology and Geriatrics Education*, 7(2):67-81, Winter 1986.

132. Sinclair, M. "Study Links Poverty, Health Care," *Washington Post*.

133. Smith, E.T., Kelly, K., Brown, C. "Aging: Can it Be Slowed?," *Business Week*, p. 58, February 1988.

134. Sommers, A.R., and Fabian, D.R. (Eds). *The Geriatric Imperative: An Introduction to Gerontology and Clinical Geriatrics*, Appleton-Century-Crafts, New York, N.Y., 1981.

135. Stone, Robyn, *Aging in the Eighties. Age 65 Years and Over - Use of Community Services: Preliminary Data from the Supplement on Aging to the National Health Interview Survey: United States. January - June 1985*, National Center for Health Services, Number 124, DHHS Pub. No. (PHS) 86-1250. Public Health Service, Hyattsville, MD, September 1986.

136. Storey, J.R. "Policy Changes Affecting Older Americans During the First Reagan Administration," *The Gerontologist*, 26(1):27-31, 1986.

137. Task Force on Alzhemier's Disease. *Alzheimer's Disease: A Scientific Guide for Health Practitoners*, NIH No. 84-2251, May 1984.

138. Taylor, H., Kagay, M. Leichenko, S. *Problems Facing Elderly Americans Living Along: A National Survey*, Louis Harris and Associates, Inc., 1986.

139. Tell, E.J., Cohen, M.A.; Larson, M.J., and Batten, H.J. "Assessing the Elderly's Preferences for Lifecare Retirement Options," *The Gerontologist*, 27(4):503-509, 1987.

140. Torres-Gil, F. and Pynoos, J. "Long-Term Care Policy and Interest Group Struggles," *The Gerontologist*, 26(5):488-495, 1986.

141. Touifexis, A. "Older - But Coming on Strong," *Time*, p. 76, February 22, 1988.

142. Turpic, I.D., Patterson, C., Chalklen, L.W., Bayne, R., Roy, J., Neufeld, C. "The McMaster Model for Geriatric Undergraduate Experience," *Gerontology and Geriatrics Education*, 6(4):59-67, Summer 1986.

143. U.S. Senate Special Committee on Aging. *Aging America. Trends and Projections*, 1987-1988 Edition.

144. U.S. Senate Special Committee on Aging. *The Health Status and Health Care Needs of Older Americans (An Information Paper)*, November 1986.

145. U.S. Senate Special Committee on Aging. *How Older Americans Live: An Analysis of Census Data*, October 1985.

146. U.S. Senate Special Committee on Aging. *Nursing Home Care: The Unfinished Agenda*, May 1986.

147. Weg, R.B. "AGHE - Coming of Age," *Gerontology and Geriatrics Education*, 5(1):17-31, Fall 1984.

148. Weiler, P.G. "The Public Health Impact of Alzheimer's Disease," *American Journal of Public Health*, 77(9).

149. Weiner, J.M., Ehrenworth, D.A., Spence, D.A. "Private Long-Term Care Insurance: Cost, Coverage, and Restrictions," *The Geronto' gist*, 27(4):487-493, 1987.

150. Wilcop, Frances, M. "Issues in the Development of Training for Mental Health Service to the Elderly," *Gerontology and Geriatrics Education*, 6(2):49-63, Winter 1985.

151. Williams, T.F. "Comprehensive Functional Assessment: An Overview," *Journal of the American Geriatrics Society*, 31(11):637-641, November 1983.

152. Williams, T.F. "The Geriatric Medical Education Imperative," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):471-477, July-August 1985.

153. Williams, M.E. "A Critical Evaluation of the Assessment Technology for Urinary Continence in Older Persons," *Journal of the American Geriatrics Society*, 31(11):657-664, November 1983.

154. Yeatts, D.E., Capitman, J.A., Steinhardt, B.J. "Evaluation of Connecticut's Medicaid Community Case Waiver Program," *The Gerontologist*, 27(5):652-659, 1987.

155. Young, C.L., Goughler, D.H., Larson, P.J. "Organizational Volunteers for the Rural Frail Elderly: Outreach, Casefinding, and Service Delivery," *The Gerontologist*, 26(4):342-394, 1986.

I. Introduction

Introduction to Module: Aging -- Demography, Biology, and Epidemiology

The primary purpose of this module is to provide public health professionals and others concerned with providing health care services for the elderly with a basic understanding of the demography, biology, and epidemiology of aging.

First, the module presents a general overview of the demographic and social characteristics of older Americans. Specifically, the module addresses four selected population characteristics: gender, race/ethnicity, marital status and living arrangements, and economic factors.

Next, this module defines aging and delineates the major characteristics of an aging population. The module concentrates on identifying and differentiating normal aging changes from pathological changes associated with increased incidence of disease among the elderly. In particular, the module outlines three specific theories of aging: (i) the Free-Radical, (ii) Immune, and (iii) the Neuro-Endocrine, and describes the implications of each theory for providing health care to aged populations.

Lastly, the module presents an overview of epidemiology as a systematic approach to determining/studying patterns of disease, injury, and death within a community, as well as for identifying patterns of delivery of health care services. In addition, the module examines mortality rates as central to understanding the effects of the aging process and of patterns of disease within the elderly cohort.

Notes to the Instructor

The remainder of this module is organized into six sections. Section II presents the Overview of the training, as well as a listing of the resources referenced within the training module.

Section III contains the core content for the training module. The materials have been organized in three sub-sections to facilitate a range of training formats, such as lunch-time sessions through full-day workshops. The Training Content is presented in a two-column format. The left-hand column presents miniaturized versions of the overheads designed to accompany training lectures/discussions. The overheads are symbolized by boxes formed of unbroken lines. Directions for training activities are also placed in the left-hand column; these are denoted by dotted lines. Activities may require the use of flipcharts and markers; please be sure you have arranged for these materials. The right-hand column contains the substantive material that serves as a script for training. Where handouts accompany the training, these have been noted by a symbol of three overlapping pages.

It should be noted that Sub-section 1, Demographic and Social Characteristics of Older Americans, contains the recommendation that trainers obtain current state/local data to permit comparison with national demographic trends. Such information is also useful for conducting discussions of local trends as they impact utilization of health services and public health planning initiatives.

Section IV presents the full-scale version of Overheads. These may be used as overheads or may be dupli-

Section IV presents the full-scale version of Overheads. These may be used as overheads or may be duplicated for use as handouts. When using these materials as overheads, remember that you will need to have access to an overhead projector and screen. Trainers may find the use of slides more convenient than overheads. The material in Section IV can be formatted as slides. The visual image of such slides may be enhanced by using a blue background with white print.

Section V presents the Handouts that accompany the training content. Both overheads and handouts should be assembled and reviewed prior to use in a training session. It is advisable to prepare sufficient copies of handouts for the anticipated number of trainees, as well as a few extra for unforeseen circumstances.

Section VI presents relevant Resources, including bibliographies, that may be useful to the trainer and/or to trainees. You may wish to make duplicate copies of these resource listings for distribution during or immediately following training sessions.

Section VII presents Readings that serve as background to the training issues or that provide additional detail on selected issues. These readings may be recommended to trainees in advance of actual training sessions, or upon completion of the module.

II. Overview

Overview of Training: Aging -- Demography, Biology, and Epidemiology

1. **Demographic and Social Characteristics of Older Americans**

Time: Lecture (60 minutes), including:
- Demographic Trends Discussion (15 minutes)

Objective: To describe the current and future trends in the population of the U.S. with respect to aging.

Overheads:
1. Longevity
2. Growth Chart
3. Median Age of U.S. Population
4. Percentage of Persons Aged 65 and Over Who Are Aged 85 and Over: 1980 to 2080
5. The "Young-Old"
6. The "Old-Old"
7. Aging
8. Elderly Picture
9. Selected Population Characteristics
10. Ratio of Females to Males
11. National Percentages of Race/Ethnicity
12. Marital Status
13. Older Brides
14. Percent of Noninstitutionalized Population Using Community Services
15. Living Arrangements of Persons 65+: 1986
16. Lack of Social Isolation
17. Older Population Residing in Nursing Homes
18. Potential Income Sources
19. Percent of Elderly and Nonelderly Population Below and Near Poverty Level
20. Median Income of Elderly Families and Unrelated Individuals

Handouts:
1. Number and Percent Distributions of Resident Population, by Age, According to Race and Sex, 1979-1985.
2. Growth Chart
3. Percent Distribution of the U.S. Population, by Age and by Sex
4. Life Expectancy at Specified Ages, by Race and Sex, 1970, 1979, 1984.
5. Marital Status of Males/Females Aged 55 and Over, 1980
6. Median Income of Persons 65 and Older, By Age, Race, Hispanic Origin, and Sex: 1986

Special Preparation: Obtain current state/local data to compare to national demographic trends. In addition, this sub-section may be updated by including information from the most recent AARP brochure, *A Profile of Older Americans* (issued annually).

2. **Biology of Aging**

Time: Lecture/Discussion (90 minutes), including:

- Self-Test (5 minutes)
- Brainstorming Session (5-10 minutes)
- Group Discussion (5 minutes)
- The Impact of Biology of Aging Studies (15 minutes)

Objective: To identify the characteristics of aging, together with major theories of aging.

Overheads:

1. Aging
2. Senescence
3. Characteristics of Aging
4. Average Age Differences in Physiological Functions Among Normal Male Subjects Aged 30 to 90 Years
5. Life Span
6. Maximum Life Span
7. Life Expectancy
8. Maximum Life Span and Life Expectancy
9. The Increasingly Rectangular Survival Curve
10. Mortality According to Age, in the Absence of Premature Death
11. Trends, Limits, and Convergences in Life
12. Theories of Aging
13. Three Theories of Aging
14. Free-Radical Diseases
15. Antioxidants

Handouts:

1. Biology of Aging Exercise
2. Changes in the Immune System With Age
3. Scenarios of the Future
4. Correct Answers to Biology of Aging Exercise

3. **Epidemiology**

Time: Lecture/Discussion (45 minutes), including:
- Preventive Strategies for Cardiovascular Disease (30 minutes)

Objective: To describe and utilize epidemiologic data as a systematic approach for understanding the effects of aging.

Overheads:
1. Epidemiology
2. Implications
3. Systematic Approach
4. Calculation of Rates
5. Incidence Rate
6. Prevalence Rate
7. Compression of Morbidity
8. Percent Decline in Death Rates for Older People, by Age and Sex, 1950-1985
9. Decrease in Mortality Due to Heart Disease
10. Death Rates for Leading Causes of Death for People Age 75-84: 1950-1984

Handouts:
1. Death Rates for Older Persons, by Age, Sex, and Race, Selected Years, 1950-1985
2. Death Rates for Ten Leading Causes of Death Among Older People, by Age, 1984
3. Cardiovascular Disease Exercise
4. Cardiovascular Disease Fact Sheet

References

Dorland's Medical Dictionary (25th Edition). Philadelphia: W.B. Saunders Company, 1974.

American Association of Retired Persons (AARP). *A Profile of Older Americans.* Washington, DC, 1985, 1986, 1987.

Brody JA. Facts, Projections, and Gaps Concerning Data on Aging. *Public Health Reports.* 99(5): 468-475, September-October, 1984.

Brody JA, Brock DW, and Williams TF. Trends in the Health of the Elderly Population. *Annual Review of Public Health.* 8: 211-234, 1987.

Bureau of the Census (Spencer G). *Projections of the Population of the United States, By Age, Sex, and Race: 1983 to 2080.* U.S. Bureau of the Census, Series P-25, No. 952, Washington, DC, 1984.

Comfort A. *The Biology of Senescence, (Third edition).* North Holland,New York: Elsevier, 1979.

Commonwealth Fund and ICF Incorporated. *Old Alone and Poor: A Plan for Reducing Poverty Among Elderly People Living Alone.* Baltimore, MD, April 16, 1987.

Cristofalo V. The Biology of Aging -- An Overview in: Horam MT, Steinberg GM, Dunbar JB, and Hadley EC (eds.). *Biomedical Information Corporation,* p. 31-39.

Donahue RP, Abbott RD, Reed DM, and Yano K. Physical Activity and Coronary Heart Disease in Middle-Aged and Elderly Men: The Honolulu Heart Program. *American Journal of Public Health.* 78(6), June 1988.

Finch CE and Landfield PW. Neuroendocrine and Autonomic Functions in Aging Mammals in: Finch CE and Schneider EL (eds.). *Handbook of the Biology of Aging.* New York: Van Nostrand Rheinhold, 567-594, 1985.

Fries JF. Aging, Natural Death, and Compression of Morbidity. *New England Journal of Medicine.* 303: 130-135, 1980.

Gerontological Society of America. *Data Resources in Gerontology: A Directory of Selected Information, Vendors, Databases, and Archives.* Washington, DC, November 1987, August 1989.

Gibbs NR. Grays on the Go. *Time.* February 22, 1988.

Kovar MG. Aging in the Eighties, People Living Alone - Two Years Later; Data From the 1984 and 1986 Longitudinal Study of Aging Interviews. *NCHS Advanced Data.* Number 149, Washington, DC, April 4, 1988.

Masoro EJ. Metabolism in: Finch CE and Schneider EL (eds.). *Handbook of the Biology of Aging.* New York: Van Nostrand Rheinhold, 1985.

Mausner JS and Kramer S. *Mausner and Bahn Epidemiology -- An Introductory Text.* Philadelphia: W.B. Saunders Company, 1985.

References (Continued)

National Center for Health Statistics (NCHS). *Health Statistics on Older Persons, 1986*. Pub. No. PHS 87-1409, Washington, DC, 1987.

National Center for Health Statistics (NCHS). *Health United States, 1988*. DHHS Pub. No. (PHS) 89-1232, Washington, DC, March 1989.

National Center for Health Statistics (NCHS). *Vital and Health Statistics: Data Systems of the National Center for Health Statistics*. Series 1, No. 23, Washington, DC, March 1989.

National Institute on Aging. *Changes... Research on Aging and the Aged*. NIH Pub. No. 81-85, Washington, DC, October 1980.

National Institute on Aging Information Office. *National Institute on Aging*. NIH Pub. No. 83-1129, Washington, DC, July 1983.

National Institute on Aging. *Special Report on Aging 1983*. NIH Pub. No. 83-2489, Washington, DC, August 1983.

National Institute on Aging. *Research Advances in Aging 1984-1986*. NIH Pub. No. 87-2862, Washington, DC, March 1987.

National Institute on Aging. *Answers About Aging: New Pieces to an Old Puzzle*. NIH Pub. No. 87-2756, Washington, DC, July 1987.

Neugarten BL and Maddox GL. (Chairs). *Our Future Selves: A Research Plan Toward Understanding Aging*. NIH Pub. No. 80-1444, Washington, DC, 1980.

Pryor WA (ed.). *Free-Radicals in Biology, Vols. 1-6*. New York: Academic Press, 1976-1984.

Rowe J. Health Care of the Elderly. *New England Journal of Medicine*. 312: 827-835, March 1985.

Rowe JW and Kahn RL. Human Aging: Usual and Successful. *Science*. 237: 143-149, July 10, 1987.

Samuelson RJ. The Elderly Aren't Needy. *Newsweek*. March 21, 1988.

Schneider EL and Brody JA. Aging, Natural Death and the Compression of Morbidity: Another View. *New England Journal of Medicine*. 309: 854-855, October 1983.

Shock NW, Greulich RC, Andres R, Arenberg D, et al. *Normal Human Aging: The Baltimore Longitudinal Study of Aging*. NIH Pub. No. 84-2450, November, 1984.

References (Continued)

Somers AR and Fabian DR (eds.). *The Geriatric Imperative: An Introduction to Gerontology and Clinical Geriatrics*. New York: Appleton-Century-Crofts, 1981.

Toufexis A. Older--But Coming on Strong. *Time*. Feburary 22, 1988.

U.S. Senate Special Committee on Aging. *How Older Americans Live: An Analysis of Census Data*. Washington, DC, 1985.

U.S. Senate Special Committee on Aging. *Aging America: Trends and Projections (1987-1988 Edition)*. DHHS, Washington, DC, 1988.

Warner HR, Butler RN, Sprott RL, and Schneider EL. *Modern Biological Theories of Aging*. Aging Series, Volume 31. New York: Raven Press, 1987.

White LR, Cartwright WS, Cornoni-Huntley J, and Block DB. Geriatric Epidemiology. *Annual Review of Gerontology and Geriatrics*. 6: 215-311, 1986.

III. Training Content

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

LECTURE (60 minutes)

1. Describe the current and future trends in the population of the U.S. with respect to aging.

[Note to Instructor: Obtain current state/local data to compare to national demographic trends. Also, obtain most recent AARP brochure.]

Overhead: Longevity

- 1890 — 25% lived to 65+
- 1985 — 70% lived to 65+
  30% lived to 80+

DEMOGRAPHIC AND SOCIAL CHARACTERISTICS OF OLDER AMERICANS

In 1890, only 25% of people in the U.S. lived beyond 65 (Brody, Brock, and Williams, 1987):

- By 1985:
  - 70% survived age 65.
  - 30% lived to be 80 or more.
- Within the next 10-20 years, some predict that almost 50% of all deaths will occur after age 80.

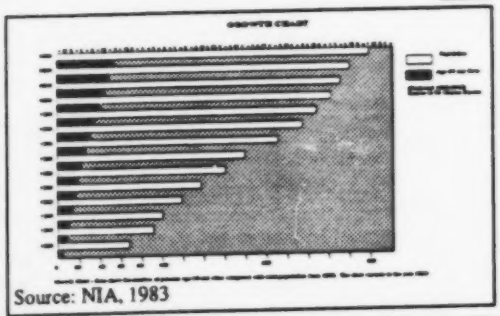
One of the most startling demographic shifts of this century is related to the growth in the number of people aged 65 and older.

- In 1985, the U.S. total resident population was approximately 238.7 million.
- That same year, roughly 28.5 million Americans were 65 or older.

Handout: Number and Percent Distributions of Resident Population, by Age, According to Race and Sex, 1979-1985

- While the total U.S. population is projected to reach almost 300 million by 2020, the number of those persons 65 and older is projected to almost double to 51 million.

Overhead/Handout: Growth Chart



Source: NIA, 1983

At the same time, there has been an increase in the proportion of older to younger members of society.

- In 1900, individuals 65+ made up approximately 4% of the American population.
- By 1985, the over-65 group accounted for about 12% of the U.S. population (those 85+ accounted for 1.1% of the total population).
- Projections for 2030 (a little more than 40 years from now) indicate that the over-65 group will represent between 17% and 20% of the total U.S. population.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

The underlying trend of these projections points to the overall aging of the future population.

- In 1982, the median age of the U.S. population was 30.6 years.
- For the upcoming 100-year period (to 2080), the median population age is never again projected so young:
  - 2000 36.3 years
  - 2030 40.8 years
  - 2080 42.8 years
  - You can see a larger jump in median age is predicted in the 18 years between 1982 and 2000, than in the other time periods (even though they represent longer time spans, i.e., 30-50 year increments).

Overhead: Median Age of U.S. Population

Year	Median Age
1982	30.6
2000	36.3
2030	40.8
2080	42.8

Handout: Percent Distribution of the U.S. Population, by Age and by Sex

- One reason for the spurt in the median age over the next few decades can be seen in the population pyramids for 1982-2080.
  - In 1982, the pyramid is fairly bottom heavy, representing a fairly youthful population.
  - By 2000, however, the baby-boom cohorts are all over age 35, which exerts a dramatic lifting effect on the median age of the population.

Not only is there an increase in the proportion of the U.S. population that is old, the elderly population, itself, is getting older.

Overhead: Percentage of Persons Aged 65 and Over Who are Aged 85 and Over: 1980 to 2080

Year	Percent
1980	8.8
1982	9.1
1985	9.4
1990	10.5
2000	14.1
2010	16.7
2030	13.3
2050	23.8
2080	24.9

Source: Bureau of the Census (Spencer), 1984

- At the present time, about 10% of the 65-and-older age group is aged 85 or older.
- By the year 2000, this "oldest of the old" cohort is expected to represent 14% of the elderly.
- This percentage is expected to increase until 2010, and then drop slightly, as baby boomers reach 65, but are not yet 85.
- As baby boomers reach towards 85, the percentage of the oldest-old will again increase.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Essentially, there are 2 general reasons that the U.S. is experiencing (as are other countries), a higher proportion of the elderly population than ever before in history:

- The primary reason is related to a marked decline in fertility -- significantly reducing the numbers of people in younger age groups.

Handout: Life Expectancy at Specified Ages, By Race and Sex, 1970, 1979, 1984

- The second reason is the increase in life expectancy:
  - In 1984, 65-year-olds had an average life expectancy of an additional 16.8 years to approximately age 82 (NCHS, 1987):
    - -- For females, aged 65, the average life expectancy was an additional 18.6 years (to age 84).
    - -- For males, the average additional years was 14.6 (to age 80).
  - A child born in 1984 could expect to live to age 74.7, approximately 27 years longer than a child born in 1900 (AARP, 1985).
    - -- The major factor in this increase was the dramatic reduction in mortality (death) rates for children and young adults since the turn of the century.
    - -- In addition, life expectancy increased by only 2.4 years between 1900 and 1960, whereas it increased by 2.5 years between 1960 and 1985.

The extension in life expectancy during the twentieth century represents not only substantial changes in the composition of society as a whole, but also interesting challenges for policy makers.

Overhead: The "Young-Old"

- Ages: 50s, 60s, early 70s.
- Relatively healthy and vigorous.
- May or may not be retired.
- Seeking meaningful uses of time.

Two sets of interrelated issues are involved (Neugarten and Maddox, 1980):

- The first set of issues arises from the fact that there are increasing numbers of the "young-old":

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- These individuals are in their 50s, 60s, and early 70s.
- They are relatively healthy and vigorous.
- They may or may not be retired.
- They are interested in meaningful ways to spend their time -- either in self-fulfillment and/or in community participation, such as volunteer activities.

• At least two sets of policy issues apply to this group:

- How to maintain and promote their continued good health or maximal functioning.
- How best to utilize their talents to enrich their own lives and to benefit society in general.

Overhead: The "Old-Old"

- Ages: mid-70s, 80, 90s.
- Some are active/vigorous.
- Most require supportive health and social services.
- May also require economic support.

• The second set of issues addresses the increasing number and proportion of "old-old" persons:

- These individuals are in their mid-70s, 80s, and 90s; and increasingly, 100s.
- A growing minority of this cohort remains active and vigorous -- it's important to remember that not all of the old-old are infirm.
- However, the majority of the old-old require a range of support services:
  - -- By 2000, 49% of the elderly are projected to be age 75 (Brody, Brock, and Williams, 1987).
  - -- Age 75 is important because that seems to be the point after which disability, morbidity, and mortality rates rapidly increase.
- This cohort is also more likely to be economically disadvantaged; in this respect, the young-old and old-old are very different.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• The policy issues for this group tend to focus on how best to cost-effectively deliver the range of services necessary to support and/or restore health.
Overhead: Aging "Aging doesn't necessarily mean a life that is sick, senile, sexless, spent or sessile."	Dr. Besdine (Director of the Aging Center at the University of Connecticut) has stated: "Aging doesn't necessarily mean a life that is sick, senile, sexless, spent or sessile" (Toufexis, 1988, p. 76). Where once there was only the image of the frail elderly, there is now a growing recognition of the possibility of vigorous, healthier long lives. • The goal of public health is not just to extend life, but also to improve its quality. • However, it is clear that the elderly are a heterogeneous group -- while many senior citizens are far better off than their counterparts of earlier generations, such well-being is by no means universal.
Overhead: Elderly Picture • Female • White • Alone • Unemployed • Urban • Chronically ill and impaired • Institutionalized.	The increasing age of the population has contributed to a perception of elderly Americans as increasingly: • Female. • White. • Alone. • Unemployed. • Urban. • Chronically ill and impaired. • Institutionalized. This is a stereotype we've had for years; but how accurate is that picture?
Overhead: Selected Population Characteristics • Gender • Race • Marital status and living arrangements • Economic factors.	Let's look at some selected population characteristics: • Gender. • Race. • Marital status and living arrangements. • Economic factors.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Gender

A clear characteristic of the population is that older females outnumber older males, by nearly 50% (Senate Special Committee on Aging, 1985).

- Although males outnumber females in the 15-19 age group, that relationship doesn't last long.
- By ages 20-24, females outnumber males, and that imbalance continues throughout life -- part of the discrepancy may be related to temporal factors, such as military history.
- Such an imbalance was not the case historically:
  - Up to 1930, the number of males and females within the elderly population was roughly equal.
  - Since 1930, reductions in maternal mortality and deaths due to infectious diseases had positive impact on the longevity of females.
  - At the same time, chronic diseases began to predominate as causes of death; higher male mortality at all ages from these causes led to a widening gap in the number of older men and women.
- Due to strong differences in mortality rates within the population, the number of females is substantially greater than that of males among the 65-69 cohort; and the imbalance increases steeply with age.
- In 1982 (Brody, Brock, and Williams, 1987):
  - There were 1.5 females for each male in the 65+ cohort.
  - Females outnumbered males by increasing margins for each successive age group up to age 100, at which point the ratio dropped slightly.

Ratio	Age
1.24:1	65-69
2.78:1	95-99
2.5: 1	100+

Overhead: Ratio of Females to Males

- Total population of 65+ = 1.5 females to each male.

Ratio	Age
1.24:1	65-69
2.78:1	95-99
2.5: 1	100+

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- In 1986, there were 17.4 million older women and 11.8 million older men (AARP, 1987):
  - The sex ratio in the 65-69 age group was 121 women for every 100 men.
  - The sex ratio for persons 85+ was 253 women for every 100 men.
- These data are important to planning and implementing health care services and delivery mechanisms since women consistently make greater use of the health care system.

Race and Ethnicity

Despite the perceptions of some casual observations of society that suggest Whites are over-represented among the elderly, census data do not support such a conclusion (Brody, Brock, and Williams, 1987):

- In 1982, 86% of the American public were White, while 91% of those 65 and older were White.
- Based on these data, there is little variation in racial composition controlling for age among those 65+ -- percentages of Whites within the different age groups of the elderly range from 90%-95%, not appreciably different than the total population percentage.

Overhead: National Percentages of Race/Ethnicity

- 90% were White.
- 8% were Black.
- 2% were American Indian, Eskimo, Aleut, Asian, or Pacific Islander.
- Persons of Hispanic origin (who may be of any race) represented 3% of the population.

Source: AARP, 1987

According to the American Association of Retired Persons (AARP), of those persons 65+ in 1986:

- 90% were White.
- 8% were Black.
- 2% were American Indian, Eskimo, Aleut, Asian, or Pacific Islander.
- Persons of Hispanic origin (who may be of any race) represented 3% of the population.

While these figures are based upon nationwide statistics, the racial and ethnic composition of any given locale may differ dramatically from the national averages.

Since health services utilization patterns are related to racial and ethnic backgrounds, determination of the racial and ethnic composition of the local area should precede program planning, development, and implementation initiatives.

Marital Status and Living Arrangements

Studies have shown that the family has remained a viable and supportive institution for older people (Neugarten and Maddox, 1980):

- Four- and five-generation families are becoming more likely.
  - From the public health planning perspective, this raises the question of what the impact of growing numbers of "sandwich generations" will be.
  - How many "sandwich generation" families will there be and what services will they require?
- Despite the viability of the extended family, there has been a dramatic trend toward separate households for older persons:
  - Most older people want to be as independent of their extended families as possible.
  - However, when such independence is no longer possible, they expect their children to come to their aid; and, those expectations are typically met.
  - More than double the number of older adults live with a child than live in institutions.
  - Typically, the primary caregiver is female -- the daughter, daughter-in-law, or other female relative.
  - An important public health issue is how to provide support for families with older persons in the household -- how to care for caregivers.
- The structure of the family has altered considerably over the past few decades:
  - Increasing proportions of older adults are married and living in spousal units.
  - At the same time, while the absolute numbers of widows are increasing, there appear to be decreases in proportions of widows, divorced, and never married.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

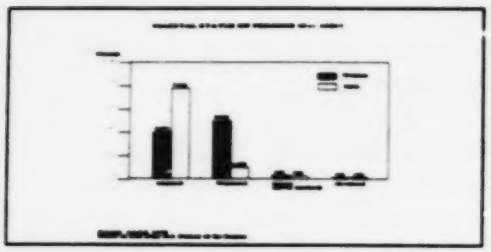
- The marital status and living arrangements of older persons are of interest not only because these factors may impact their personal sense of happiness, but also their levels of independence and risk of institutionalization.

Handout: Marital Status of Males/Females Aged 55 and Over, 1980

The effects of the imbalanced gender distribution impact the marital status of the two sexes (Senate Special Committee on Aging, 1985):

- In the second half of their 50s, the majority of both sexes are married.
  - A small percentage have remained single, and another small portion are currently divorced.
  - Few of the men are widowers, while a sizable percentage of the women have already been widowed.
  - The male/female differences in widowhood continue to expand with age.
    - -- For those 85+, approximately 82% of women are widowed, as compared to only 44% of men.
- In 1986, 50% of all older women (65+) were widows; there were over 5 times as many widows (8.1 million) as widowers (1.5 million) (AARP, 1987).
  - In part, this is due to the higher remarriage rates of men, who often marry younger women.
  - Consistent with this is the fact that older men were twice as likely to be married as older women (78% of noninstitutionalized men; 40% of noninstitutionalized women).

Overhead: Marital Status



Marriage rates of older persons are also important indicators of trends, such as living arrangements (NCHS, 1986):

- In 1984, about 70,000 older persons married in America:
  - Of these, approximately 25,000 were women:
    - -- 13,000 aged 65-69
    - -- 7,000 aged 70-74
    - -- 4,000 aged 75+.

Overhead: Older Brides

Number	Age
• 13,000	aged 65-69
• 7,000	aged 70-74
• 4,000	aged 75+

- Interestingly, the number of brides in 1984 represented a 24% increase over the number in 1970.

  -- The greatest increase (80%) was in the 75+ cohort.
  -- In 1984, more than 1,000 women in their 80s got married.

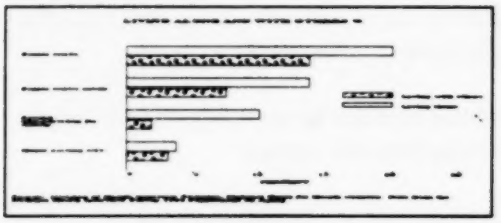
- During that same period, 1970-1984, the number of older grooms increased 13%.

  -- The greatest absolute increases were for men 65-69.
  -- However, the largest proportionate increases were for men 80+: about 4,000 men in their 80s married in 1984.

- The growing trend for marriages at later ages is also indicative of a changing, more optimistic outlook on the part of older adults.

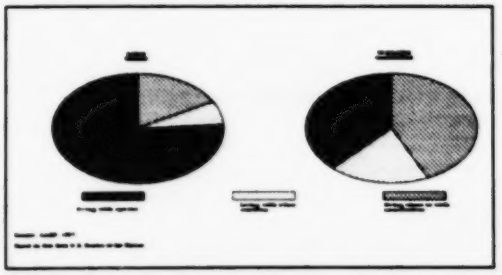
In addition to marital status, the living patterns of older Americans are of interest since it is important to identify those living alone and to address their specialized problems, such as lack of social support, access to community services, etc.

Overhead: Percent of Noninstitutionalized Population Using Community Services



Research findings suggest that living alone increases the probability of need for long-term care and institutionalization (NCHS, 1987).

Overhead: Living Arrangements of Persons 65+: 1986



- Most older noninstitutionalized adults live in a family setting:

  - In 1986, approximately 83% of older men and 57% of older women lived in families (AARP, 1987).

  - Most of the elderly lived in households with a spouse present (Brody, Brock, and Williams, 1987):

    -- However, the gender differences in living arrangements are significant.
    -- In 1981, 75% of older men lived with a spouse, as compared to only 36% of the women in the same age group.

- An additional 2% of both men and women lived with nonrelations.

- The proportion of older adults living in a family setting decreases with age.

• About 30% of all noninstitutionalized older adults lived alone in 1986.

- These represented about 41% of women and 15% of men.

-- Approximately 3 times as many women live alone as men (6.4 million women as compared to 1.6 million men in 1984) due largely to the disparity in rates of widowhood (Brody, Brock, and Williams, 1987).

- Significantly, the percentage of the older population living alone increased by 123% between 1964 and 1984 -- more than 2-1/2 times the growth rate for the older population in general.

• It should be noted that many of the people who were living alone were not disabled, or in poor health, or suffering from a lack of medical care, or lacking family or companionship (NCHS, 1986).

• Although the potential for social isolation exists, data from the Supplement on Aging show (NCHS, 1987):

- The majority of those who live alone reside close to family with whom they have frequent contact.

Overhead: Lack of Social Isolation

- Many elderly have not been residentially mobile:

-- 62% hadn't moved in 10 years.
-- 32% had lived in the same place 25+ years.
-- Only 24% had moved within the 5 years prior to the survey.

- Approximately 11% live in retirement communities.

- 62% had not moved in 10 years.
- 32% had not moved in 25+ years.
- 11% live in retirement communities.
- 95% have and use telephones to maintain contacts.

- The findings suggest that long residence in the same place, as well as the relatively high proportion of elderly living in retirement communities, may account for the relatively low rate of social isolation among those who live alone.

- The telephone is also seen as a major contributor to low rates of social isolation:

  -- 95% of those living alone had telephones and used them as a major means of staying in contact with family, friends, and neighbors.

  -- Given the importance of the telephone for minimizing social isolation, men are at greater risk than women, since only 84% of males living alone had phones, as compared to 97% of females.

Overhead: Older Population Residing in Nursing Homes

- 93% were aged 65 and older.
- 78% were 75 and older.
- 42% were 85+.

Although the majority of older adults are able to maintain a residence in the community, approximately 1.4 million people 55 and older resided in nursing homes in 1985 (NCHS, 1986):

- 93% were aged 65 and older.
- 78% were 75 and older.
- 42% were 85+.
- In general, rates of institutionalization increase with advancing age.
- Rates of institutionalization were lower for males than for females, and also lower for Blacks than for Whites:
- White females had the highest rates of institutionalization:
  - 6% of the population aged 65+.
  - 26% of those 85+.
- By contrast, institutionalized White males represented:
  - 3% of the 65+ population.
  - 15% of the 85+ population.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Data from the 1984 and 1986 Longitudinal Study of Aging Interviews suggested (Kovar, 1988):

- Older people who had been living alone during the earlier study were more likely than those living with others to be in a nursing home during the follow-up study two years later.
- There was evidence of a progression: people live alone, then with other people if such assistance is available to them, and then they may become nursing home residents.
- Older people who die or who become residents of nursing homes do so not because they are old or because they are alone, but because they are sick.

Economic Factors

As a group, older Americans have a lower income status than other adult sub-groups (Senate Special Committee on Aging, 1988).

Overhead: Potential Income Sources

- Earnings
- Savings
- Social Security
- Supplemental Social Security (SSI)
- Pensions
- Other
  - Family support
  - Unemployment compensation
  - Veterans pensions
  - Bequests/gifts
  - Royalties

Potential income sources for the elderly include:

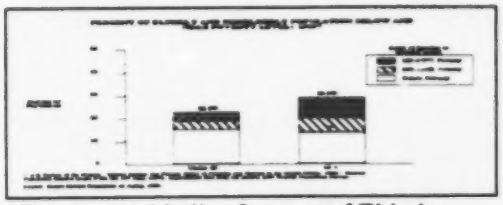
- Earnings -- income from wages, salary, and self-employment.
- Savings -- interest and dividends from savings and other assets.
- Social Security -- payments from the Federal Social Security program that are benefits, which are a function of labor force earnings level throughout one's working life (or that of a spouse).
- Supplemental Security Income (SSI) -- payments from Federal and state governments to low-income aged, blind, and disabled individuals.
- Employer pensions -- pension plan payments accrued during one's work years or those of one's spouse.
- Other -- family financial support, unemployment compensation, Veterans pensions, bequests/gifts, rents, royalties, etc.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Changes in status associated with aging play a significant part in the lower economic stability of the elderly:

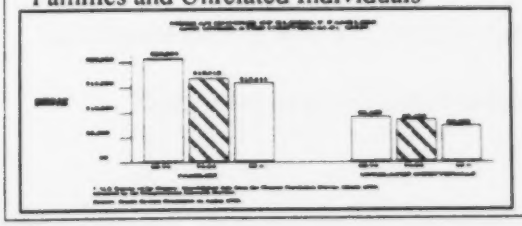
- Age 65 is commonly thought of as the retirement age, although 2/3 of older workers retire before 65.
- The labor force participation of men and women drops drastically with increasing age:
  - 55% of 60-64 year old men were in the labor force in 1986.
  - 25% of 65-69 men were in the labor force.
  - 10% of 70+ were in the labor force.
- In retirement, older Americans lose a primary income source, becoming reliant on Social Security benefits, supplemented by pensions and lifetime-accumulated assets (AARP, 1987).
  - The major income source for noninstitutionalized older individuals and families in 1985 was:
    - -- Social Security: 35%
    - -- Asset income: 25%
    - -- Earnings: 23%
    - -- Public and private pensions: 14%
    - -- Other: 2%

Overhead: Percent of Elderly and Nonelderly Population Below and Near Poverty Level



- In 1986, 12.4% of people 65+ had incomes below the poverty level as compared to 10.8% of 18-64 year olds and 13.7% of all persons under 65 (i.e., including children).
  - Those who are 85 and older have significantly lower money incomes than those 65-84.

Overhead: Median Income of Elderly Families and Unrelated Individuals



- In general (Senate Special Committee on Aging, 1988):
  - Males fare better than females -- the median income of elderly women is slightly more than half the median income of elderly men.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Handout: Median Income of Persons Age 65 and Older By Age, Race, Hispanic Origin, and Sex: 1986

- Nonwhite elderly individuals have substantially lower money incomes than their White counterparts:

  -- In 1986, the poverty rate among Black elderly (31%) was nearly triple, and among Hispanic elderly (22.5%) more than double, the poverty rate among White elderly (10.7%).

  -- Nearly half (44.7%) of all Black older persons and about one-third (32%) of older Hispanics had incomes below 125% of the poverty level compared to about one-sixth (18.3%) of older White persons.

The elderly represent a very heterogeneous economic picture.

Off the non-institutionalized elderly persons in the U.S., approximately 1/3 live alone (almost 9 million individuals) (Commonwealth Fund, 1987):

- 2 million of these persons face a difficult set of circumstances -- they are old, alone, and poor.
- Elderly singles are nearly five times as likely to be poor as elderly couples.
- 80% of elderly singles are women.
- 67% of the elderly poor living alone are widows.

Despite the portrayal of the economic hardships of a significant segment of the elderly, not all elderly persons are economically disadvantaged:

- In 1984, the median net worth (assets minus liabilities) of older households ($60,300), including those 75+ years ($55,200), was considerably above the U.S. average of $32,700 (AARP, 1987).
  - Net worth was below $5,000 for 16% of older households.
  - 7% of older households had net worth in excess of $250,000.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- One third of Americans aged 55+ spend $70B a year on housing, $20B a year on apparel, and $15B on home furnishings.
- Bickley Townsend, a senior editor of *American Demographics*, views older Americans as providing a growing , wealthy market that breaks down as follows:
  - 55- to 64 -year-olds: 22 million people, the most affluent in the mature market. Typically they have grown children and little or no mortgage, and they still work.
  - 65- to 74-year-olds: 17 million "traditional retirees." Most are in good health and live independently.
  - 75- to 84-year-olds: 10 million people, a large percentage of whom are widows who live modestly.
  - 85 plus: 3 million old-old, the fastest growing segment of the population and those most in need of adult day care, home care, and nursing homes.

Activity. Demographic Trends Discussion (15 minutes):

Discuss the implications of current and future demographic trends at the local level in terms of impact on public health institutions.

Questions for Discussion:

- What are the major demographic trends in your local area?
- What about the upcoming cohort of older adults -- how will the picture change as those who are now 45-64 mature?

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (90 minutes)	BIOLOGY OF AGING
2. Identify the characteristics of aging, together with major theories of aging.	

Activity. Self-Test (5 minutes):

- Handout: Biology of Aging Exercise
- Ask participants to complete exercise/questionnaire.
- Do not review answers to questions at this time.

Biology of Aging Exercise

What is Aging?

Understanding aging has become both a medical and a social imperative for this century given the demographic trends that require profound changes to our health care system, as well as to society's ability to optimize the integration and potential contributions of increasing numbers of older adults who remain vigorous.

- Everybody knows what aging is when they see it, but most people find it difficult to define.

Overhead: Aging

- Gradual structural changes that occur with the passage of time.
- Not due to disease or accident.
- Eventually leads to increased probability of death as the organism grows older.

- A basic definition of *aging* is (Dorland's Medical Dictionary, 1982):

"The gradual structural changes that occur with the passage of time, that are not due to disease or accident and that eventually lead to increased probability of death as the organism grows older."

Overhead: Senescence

Senescence: Process of growing old.

- Senescence is the process of growing old.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Activity. Brainstorming Session (5-10 minutes):

Use flipchart to record participants' responses to Question for Discussion

Question for Discussion:

- What are some characteristics of aging?
- Looking at the list of characteristics, which characteristics are:
  - Normal?
  - Pathological?
  - Reversible?

Overhead: Characteristics of Aging

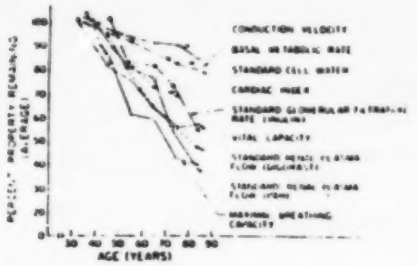
- Loss in functional capacity with age.
- Increased vulnerability to disease with age.
- Changes in chemical composition of the body.
- Wide variation among individuals in rate of aging.
- Reduced ability to respond adaptively to environmental change.
- Different organ systems age at different rates.
- Different organ systems age at different rates within the same individual.
- As age increases, the variance among individuals increases.

Characteristics of aging include:

- Loss in functional capacity with age.
- Increased vulnerability to disease with age.
- Changes in chemical composition of the body.
- Wide variation among individuals in rate of aging.
- Reduced ability to respond adaptively to environmental change.
  - The homeostatic mechanism becomes more difficult to attain.
  - Increased incidence of hypothermia and hyperthermia with aging.
- Different organ systems age at different rates.
- Different organ systems age at different rates within the same individual.
- As age increases, the variance among individuals increases -- in a sense, individuals become more unique the older they become.

The basic point is that aging can be characterized as a generalized loss of cellular and extracellular function that is often accompanied by detectable structural changes in various cells, tissues, and organs.

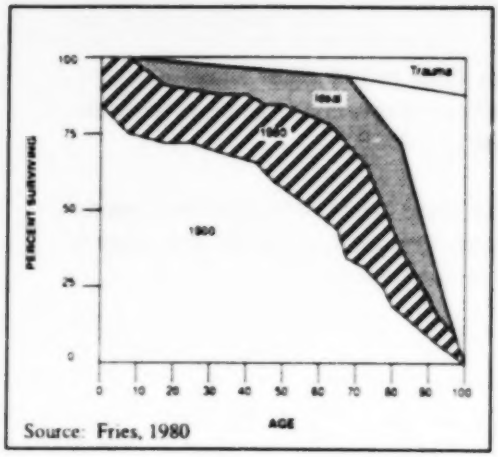
- All organisms age.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• Organs age, often semi-independently.
	• Cells age.
Overhead: Average Age Differences in Physiological Functions Among Normal Male Subjects Aged 30 to 90 Years	• In humans, most biological functions decrease starting at age 30 (Comfort, 1979).
	- It really looks like everything goes downhill after 30.
	- On the positive side, individuals can still function well (even into their 70s, 80s, and 90s) with diminished physiological capacity -- e.g., person can do well with only 30% of kidney function.
Source: Comfort, 1979	- The problem is that diminished physiologic function translates into reduced ability to take extra stresses -- you can't bounce back as readily from such "burdens" as medication, situational stress, and illness (but some experts point out that this is not too different from pregnancy or serious allergy, where it is nore difficult to bounce back from stresses).
Overhead: Life Span	It is important to distinguish between the concept of life span and life expectancy (Schneider and Brody, 1983).
Life span is the maximum survivial potential of a particular species.	• *Life span* is the maximum survival potential of a particular species.
	• For example, there are no 100-year-old mice -- the life spans of species are quite different and characteristic; mice have about a 2-year life span.
	• There is more variation among species than there is among individuals within the same species.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Maximum Life Span • Body size. • Metabolic rate. • Length of gestation. • Age of first reproduction. • Brain size. • Cellular concentration of anti-oxidating mechanisms. • Concentration of DNA repair mechanisms. • Number of doublings that cells can undergo. • Generation time.	• **Among species, the maximum life span is associated with:** - **Body size.** - **Metabolic rate.** - **Length of gestation.** - Age of first reproduction (for mammalian females). - Brain size (especially as related to body size). - Cellular concentration/effectiveness of anti-oxidating mechanisms (such as those that inactivate free radicals). - Concentration/effectiveness of DNA repair mechanisms (one theory of cancer is that DNA repair mechanisms are not working properly). - Number of doublings that cells can undergo in culture before stopping or undergoing transformation (e.g., in the 1960s, it was discovered that normal human cells stop dividing after 50 divisions; this is known as the Hayflick phenomenon). - Generation time (most mammalian species do not survive beyond time their first born are able to reproduce, so its unusual that humans live so long).
Overhead: Life Expectancy *Life expectancy* is the average observed years of life from birth or from any stated age.	• *Life expectancy* is the average observed years of life from birth or from any stated age.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Activity. Group Discussion (5 minutes): Use flipchart to record responses to each of the three questions.	Questions for Discussion: • What is the maximum life span for humans? • At present, what is the current life expectancy for humans? • Why is there a difference between these two figures?
Overhead: Maximum Life Span and Life Expectancy • Maximum life span: 115-120 years. • Life expectancy: - 78.3 years for females. - 70.7 years for males.	For human beings, the maximum *life span* that has been documented is between 115 and 120 years. • Claims are sometimes made for groups of extremely long-lived populations -- said to be 150 or older -- in Abkhasia (a region in the Georgian Republic of the USSR), in the Vilcabamba Valley of Ecuador, and in the Hunza River region of the Pakistani Himalayan mountains (NIA, 1987). • Many of these enclaves of longevity share a common geographic characteristic -- mountain terrain. • Proponents of these groups of people ascribe their longevity to the harsh conditions typical of mountainous regions, together with the rugged lifestyles. • Nevertheless, experts note that the evidence to substantiate such claims of longevity is scanty, at best. • Most such claims can be traced to simple age exaggeration, although the longest documented human life (recorded in Japan) lasted 120 years (NIA, 1987). At the present time, life expectancy is (Schneider and Brody, 1983): • 78.3 years for females. • 70.7 years for males. The average length of life has increased from 47 to 74 years in the last century, but the maximum life span has not increased.

Overhead: The Increasingly Rectangular Survival Curve

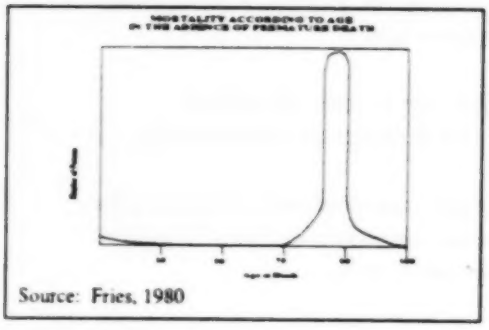


Source: Fries, 1980

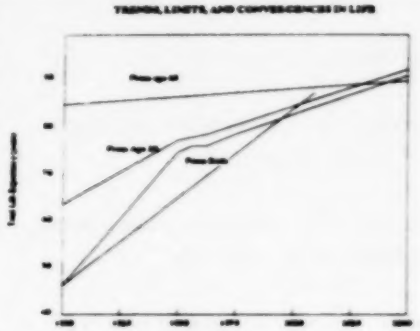
Fries has predicted that survival curves are assuming an increasingly rectangular form (Fries, 1980).

- People are living longer and longer, and then dying quickly -- about 80% (hatched area) of the difference between the 1900 curve and the ideal curve (stippled area plus hatched area) had been eliminated by 1980. Trauma is now the dominant cause of death in early life.
- Fries' hypothesis includes several assumptions:
  - That death rates will remain low until a certain age (the horizontal component of the rectangle).
  - That the majority of deaths will occur over a short span of years (the vertical component of the rectangle).
  - His point is that 80% of the years of life lost to nontraumatic, premature death have been eliminated.
  - Most premature deaths are due to chronic illness in the later years of life.
  - Chronic illness may presumably be postponed by changes in lifestyle.
  - Therefore, the average age at first morbidity can be raised, making the morbidity curve more rectangular -- in essence, compressing morbidity into a shorter time span (e.g., a long period of health, followed by a shorter period of illness, then death).

Overhead: Mortality According to Age, in the Absence of Premature Death



Source: Fries, 1980

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• Given these assumptions, Fries predicts that an average life expectancy of approximately 85 years will emerge in the early part of the next century.
Overhead: Trends, Limits, and Convergences in Life	- Using actuarial data, Fries' projection of total life expectancy data into the future shows convergence at the average life span, 85 years, in 2045.
 Source: Fries, 1980	- Spans of 82.6 to 85.6 years can be calculated from projections from different ages (at birth, at age 20, and at age 65) and different years in this century.
Overhead: Theories of Aging	Theories of Aging
Collagen theory Cross-linking theory Endocrine theory Error catastrophe Free-radical theory Immunological theroy Metabolic theory Programmed senescence theory Rate of living therory Somatic mutation theory Waste product theory Wear-and-tear theory	Theories of aging can help explain the difference between the maximum life span and life expectancy. • There are many aging theories to date. Some have inconclusive evidence, and therefore are controversial. • Theories that hold the most promise point to the genes, the internal machinery of cells, the body's system of chemical messengers, and the immune system.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Three Theories of Aging • Free-Radical Theory • Immune Theory • Neuro-Endocrine Theory	• This session will discuss 3 theories: - Free-Radical Theory - Immune Theory - Neuro-Endocrine Theory. All 3 theories are considered developmental-genetic: • They consider the process of aging as part of a continuum with the process of development. • A further assumption is that the process is genetically controlled and perhaps programmed. <u>The Free-Radical Theory</u> The Free-Radical Theory of Aging proposes that most aging changes are due to free-radical damage (Harmon, 1962). • Free-radicals are molecules created as the cells perform their daily work. They contain a highly reactive form of oxygen. • Because of their unpaired electrons, free-radicals are short-lived, highly reactive products of metabolism. • By oxidation mechanisms, free-radicals have potent abilities to modify DNA, proteins (collagen and elastin in skin, muscles, and connective tissue), and phospho-lipids. • Some scientists believe that, although free-radicals are usually cleared from the body without causing functional damage, and some free-radicals are actually beneficial, an age-related accumulation of free-radical damage may occur, and that's what is responsible for aging.
Overhead: Free-Radical Diseases - Atherosclerosis - Cancer - Essential hypertension - Alzheimer's disease - Osteoarthritis - Senile cataract - Parkinson's disease	• Free-radical changes in biomolecules may be fundamental to most of the age-dependent diseases (Pryor, 1976-1984). Examples of these diseases include: - Atherosclerosis. - Cancer. - Essential hypertension. - Alzheimer's disease. - Osteoarthritis. - Senile cataract. - Parkinson's disease.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- Free-radicals are produced continuously in all cells in the body (NIA, 1987).
  - The body has evolved efficient ways of detoxifying these free-radicals.
  - For example, several enzymes convert free-radicals such as super oxide (the most common free-radical) to harmless water and oxygen.
  - Certain vitamins (e.g., C and E) are efficient antioxidants -- "free-radical scavengers".

Overhead: Antioxidants

Free-radical scavengers = antioxidants

One hypothesis is that antioxidants and food restriction will lower free-radical levels, and decrease an individual's probability of developing these age-dependent diseases (Masoro, 1985).

- Research shows that prolongation of life can be accomplished in many species by caloric restriction.
- For example, by cutting the caloric, but not the nutritional, intake of rats to 60% of what they would normally eat, rats' average life span can be increased by 50% compared with rats on a normal diet.

Studies have shown that animals with longer life spans also have increased levels of one of the more crucial enzymes, superoxide dismutase (SOD) (NIA, 1987).

- SOD detoxifies the common free-radical superoxide.
- A survey of various animal species showed that human beings (the longest lived of the species surveyed) had the highest SOD tissue levels.
- Such studies suggest that the genes that regulate this de-oxidizing SOD may be among those involved in the evolution of increased lifespan.

Although the free-radical theory was first proposed 30 years ago, it has not been rigorously tested in humans; however, it is currently being researched (NIA, 1987).

- If aging is multicausal, as many scientists believe, then free-radicals may be a contributor to aging, rather than the cause of all aging processes.

- This theory has had an important effect on thinking regarding longevity because it introduced the idea that it may be possible to intervene in the aging process, not just to prolong life, but to alter the way in which people actually age.

Immune Theory of Aging

The role of the immune system has broad implications for the aging process (NIA, 1987):

- The immune system comprises the organs and cells that defend the body against bacteria, viruses, aberrant cells, and other invading organisms.

- The thymus gland (which is located in the upper chest) is an essential component of the immune system.

  - The thymus reaches maximum size during adolescence.

  - The thymus, the master gland that controls the production of white blood cells, is one of the first organs in the body to reach old age.

  - The thymus shrinks until it is almost invisible at age 50.

  - A recently reported biotechnology advance involved thymosin, a thymus hormone combined with a flu vaccine, that nearly triples the percentage of elderly patients receiving protection in comparison to elderly patients only given the flu vaccine (*Business Week*, February 8, 1988) -- such findings lend credence to the belief that the thymus fulfills an important protective function.

- As the thymus shrinks, there are parallel changes in other immune functions, including an increasing:
  - Failure to appropriately react to foreign agents or organisms ("non-self").
  - Tendency to react against the body's own tissues ("self").
- Functional capacity of immune system and of T-cells declines with age, resulting in decreased resistance to infectious disease for older individuals -- older people are more prone to viruses and allergies.
- Decline in the ability of the immune system to recognize and tolerate "self" antigens, results in auto-immune diseases (e.g., rheumatoid arthritis, lupus) in which the body produces antibodies to its own cells.

Handout: Changes in the Immune System With Age

- Age-related changes in the immune system may be responsible for many age-dependent diseases and disorders.
- Proponents of the immunological theory of aging believe that a programmed decline in immune system function leads to aging and death.

<u>Neuro-Endocrine Theory of Aging</u>

- The neuro-endocrine theories view aging as the result of functional decrements in neurons (brain cells) and their associated hormones (Cristofalo, 1987).
- This is a popular theory of aging because a body of data relates aging of the organism to loss of responsiveness of the neuro-endocrine tissue to various signals.
- Functional declines in the hypothalamic-pituitary glands (the master time-keeper of the body) result in the decline of functional capacity in all systems.
- Some researchers believe that the hypothalamus instructs the pituitary gland to secrete a hormone that interferes with the ability of body tissues to respond to thyroid hormones, although this theoretical "death hormone" has never been isolated.

- A decline in the production of pituitary growth hormone contributes to the loss of muscle tissue and skin wrinkling.
  - Between the ages of 30 and 70, the average person loses 30-70% of the body's muscle mass.
  - It should be noted, however, that lifestyle (e.g., exercise, and dietary patterns) also can have an impact on this.
- DHEA (a steroid produced by the adrenal gland, which sits above the kidney) declines with age in humans, leading to speculation that lack of DHEA may play a role in, or actually cause, aging.
  - In rodents, DHEA injections can inhibit various cancers and delay the onset of diabetes.
  - Treated animals appear more youthful, have glossier coats, and display higher activity levels than control animals.
  - Also, the treated animals eat as much food, but do not gain as much weight, as control animals -- leading to speculation that DHEA may cause internal caloric restriction.
  - There are no conclusive findings on the effects of DHEA on humans, but DHEA research is still an active field.
- The neuroendocrine theories do not appear to be universally applicable to all species:
  - These theories appear more applicable to vertebrates that have highly developed neuroendocrine systems.

Scientists feel no unitary theory is adequate to explain all aspects of aging. Rather, a combination of theories is needed to explain this complex subject.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- Research and theoretical development suggest that many of the diseases and processes of aging may be delayed.
- However, it is also possible that inhibiting the manifestations of aging in one organ/tissue may not have a generalizable and parallel effect in the rest of the body:
  - The good news is that the various diseases of aging will probably be markedly ameliorated/delayed one at a time ... if we work hard enough, each will fall in its turn.
  - The bad news is that a magic bullet is not likely to be found for aging in general, so that asymmetries in the aging phenotype may become the rule.

Activity. <u>The Impact of Biology of Aging Studies (15 minutes)</u>:

- Handout: Scenarios of the Future

- Use flipchart to record participants' responses to Questions for Discussion.

Questions for Discussion:

- Of the three scenarios presented, based upon the current state of knowledge, which outcome do you think is most likely?
- What are the major ethical issues that arise from advances in knowledge of the biology of aging?
- What are the implications for public health policy and practice?

Handout: Correct Answers to Biology of Aging Exercise

Optional Activity. <u>Review Biology of Aging Exercise (10 minutes)</u>:

- Give participants handout of Aging Exercise with the correct answers.
- If time permits, go over the quiz, question by question.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (45 minutes)	EPIDEMIOLOGY
3. Describe and utilize epidemiologic data as a systematic approach for understanding the effects of aging.	
	Overview of Epidemiology
Overhead: Epidemiology Study of *distribution* and *determinants* of *diseases* and *injuries*.	Epidemiology is the study of the distribution and determinants of diseases and injuries in human populations (Mausner and Kramer, 1985). • The key is that it's population based. • As such, it focuses on the frequencies and types of illnesses and injuries in groups of people, and the factors that influence their distribution.
Overhead: Implications • Disease is not randomly distributed. • Population subgroups have different frequencies of illness/injury. • Frequency distributions provide foundation for: - Investigating causality - Planning prevention and control programs.	• Such a perspective has several pertinent implications, namely: - Disease is not randomly distributed through a population. - Subgroups of the population differ with respect to the frequency of different illnesses and/or injuries. - Knowledge of these uneven distributions can be used not only to investigate causal factors, but also to develop focused programs of prevention and control.
Overhead: Systematic Approach • Patterns of disease/injury within a community. • Patterns of delivery of medical/health care services.	As a systematic approach, epidemiology provides a mechanism for studying both the patterns of occurrence of disease/injury within a community and the pattern of delivery of medical/health care services.
	Although epidemiology is defined in terms of disease, the central concern is maintenance of health through the prevention of disease (Mausner and Kramer, 1985). • It's easier to define and measure disease, disability, and/or death, than it is to operationally define health.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- **Health is subject to interpretation; it can be defined various ways:**
  - **As the absence of disease or disability.**
  - **As a state of complete physical, mental, and social well-being; not merely the absence of disease (World Health Organization, as cited in Mausner and Kramer, 1985).**
- **Because health is an "elastic" concept (although there are recent attempts to quantify health status that may prove helpful in the future), physical and mental health tend to be measured by their converse -- disease and death.**

Overhead: Calculation of Rates

Measurement of disease/death is accomplished in terms of calculating rates (Mausner and Kramer, 1985):

$$\text{Rate} = \frac{\text{Number of events, cases, or deaths}}{\text{Population in same area}} \text{ in a time period}$$

$$\text{Rate} = \frac{\text{Number of events, cases, or deaths}}{\text{Population in same area}} \text{ in a time period}$$

- The numerator of a rate is the number of people with the disease being counted; the denominator is the population *at risk* of the disease or event.
- Note that in a rate (i) the numerator is the number of people to whom something happens, and (ii) everyone in the denominator must be at risk of entering the numerator.
- Any rate can be expressed as a crude rate or a specific rate.
  - *Crude rates* are summary expressions based upon the actual number of events in a *total population* during a given time period.
  - *Specific rates* state the rate in terms of specific characteristics of homogeneous population subgroups during a given time period.
  - For example:
    - -- A crude death rate might be expressed as 8/1000 in 1989.
    - -- A specific death rate would detail age, sex, and/or race as homogeneous subgroups -- e.g., 8/1000 males in 1989 or 8/1000 25-34 year olds in 1989.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- *Morbidity rates* are the rates of disease/disorder.
- *Mortality rates* are the rates of death.

A number of different rates of morbidity (illness) are used in epidemiology, and are useful to public health planning efforts (Mausner and Kramer, 1985):

- All of these rates fall into two basic categories -- incidence rates and prevalence rates.

Overhead: Incidence Rate

$$\text{Incidence rate} = \frac{\text{Number of new cases of a disease}}{\text{Population at risk}} \text{ in a time period}$$

- *Incidence rates* measure the number of new cases of a disease in a population over a period of time.

$$\text{Incidence rate} = \frac{\text{Number of new cases of a disease}}{\text{Population at risk}} \text{ in a time period}$$

  - Incidence specifies the rate at which new disease occurs in a defined, previously disease-free population group.
  - Incidence rates reflect the probability that healthy people will develop a disease during a specified period of time.

Overhead: Prevalence Rate

$$\text{Prevalence rate} = \frac{\text{Number of existing cases of a disease}}{\text{Total population}} \text{ in a time period}$$

- *Prevalence rates* measure the number of people in a population who have the disease at a given time.

$$\text{Prevalence rate} = \frac{\text{Number of existing cases of a disease}}{\text{Total population}} \text{ in a time period}$$

  - Prevalence measures the probability of people having a disease at a given point in time (more specifically termed *point prevalence).*
  - Prevalence depends upon 2 factors: (i) the number of people who previously have been ill (past incidence) and (ii) the duration of their illness.

- Given a stable population, if the disease is chronic (as is often the case with elderly cohorts), even if only a few people become ill each year, incidence maybe low, but prevalence will be increasingly high in relation to incidence because of the accumulation of cases over time.

- Alternatively, given a stable population, if a disease is acute (of short duration), resulting either in recovery or death, then prevalence will be low in relation to incidence.

As the discussion on demography indicated, the age structure of American society is evolving from a larger proportion of children and young adults toward a substantially expanded aged segment.

This so-called "greying of America" leads to questions about our national preparedness to meet what might emerge as major increases in demands for health care.

- There are at least two perspectives on whether there will be a burgeoning increase in health care demand.

Overhead: Compression of Morbidity

- Period of diminished vigor will decrease.
- Chronic illness will occupy smaller proportion of lifespan.
- Need for medical care in later life will decrease.

- The proponents of Fries' compression of morbidity theory hold that (White, Cartwright, Cornoni-Huntley, and Brock, 1986):
  - The average period of diminished physical vigor will decrease.
  - Chronic disease will occupy a smaller proportion of the typical lifespan.
  - The need for medical care in later life will decrease.

- If Fries' predictions are correct the age-specific rates for disabilities and infirmities will be lower among the elderly of today than the elderly of earlier cohorts.

- White, Cartwright, Cornoni-Huntley, and Brock (1986) point out that the age-specific incidence rates have fallen for heart disease and stroke, but not for some of the other diseases (such as osteoarthritis, diabetes, hearing impairment, vision impairment, osteoporosis-related fractures) commonly viewed as related to aging.

  - They point out that this does not preclude the validity of the Fries prediction.

  - At least 2 possibilities exist:

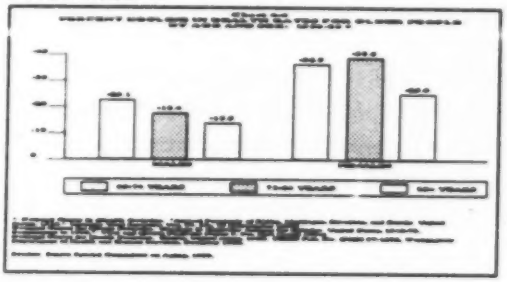
    -- Fries is correct; even though the total period of later life is extended, the total later life morbidity of the elderly of the future will be less than the morbidity of today's elderly.

    -- The compression of morbidity will not occur; in which case, the elderly of the future will suffer illnesses and disabilities similar to those of the current cohort of elderly, but for more years, since they will live longer.

  - This second possibility is a gloomier prediction; if however, it is not just pessimistic, but also accurate -- then we must be prepared to provide adequate health care for a massive number of ill, disabled, and frail elderly, and we must focus efforts on deferring or preventing high morbidity rates.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead: Percent Decline in Death Rates for Older People, by Age and Sex 1950-1985

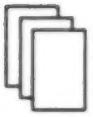


Handout: Death Rates for Older Persons, By Age, Sex, and Race, Selected Years, 1950-1985 -

The Health Conditions of the Elderly

Mortality rates are central to understanding the effects of the aging process and of patterns of disease on the elderly population.

- There is a tendency to focus on mortality rates because in a sense they're more accessible.
  - For example, it is easier to determine how many persons died of myocardial infarction, where it may not be possible to determine who is ill with it.
  - Mortality data are based on information reported on death certificates filed in state registration offices.
    - -- Mortality data are useful for planning efforts; nevertheless, it must be noted that they too are subject to some error and/or distortion.
    - -- These records may not contain reports of underlying causes, although secondary illnesses may be listed.
    - -- The accuracy of information depends upon who fills out the death certificate.
- In the past 3-4 decades, life expectancy of Americans has increased significantly -- an average of 5.6 years for males and 7.1 years for females since 1950 (Senate Special Committee on Aging, 1988).
- At the same time, significant declines in mortality rates have occurred in the older age groups (Senate Special Committee on Aging, 1988).
  - These declines in death rates have not been evenly distributed throughout the population, as you can see.
  - The decline in death rates has not been as steep for the 85+ group as it has for the other 2 age groups.
  - Males have not experienced as great a decline as females.
    - -- During the 1979-84 period, mortality rates for males were higher than those for females in every age group 55 years and over (NCHS, 1987).

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	- Whites, regardless of gender, have had larger declines in death rates than Blacks. -- Although mortality rates for Black persons exceeded those for White persons among younger age groups (65-84), mortality rates for Blacks 85+ were lower than for Whites in that same age sub-group (NCHS, 1987). -- In fact, Black females had the lowest death rate of any race-sex cohort of 85 years and older. -- This "crossover" of death rates between races at older ages may represent survival of a selected and less disease-prone cadre of older Black people, or, it may be an artifact of overreporting of age in the older sub-groups, especially with respect to minority populations (NCHS, 1987).
Handout: Death Rates for Ten Leading Causes of Death Among Older People, By Age, 1984 	Rates for 10 leading causes of death among Americans aged 65 and older are presented by rank order and by age group. • The relative rankings vary with age, but the top three causes -- diseases of the heart, malignant neoplasms (cancer), and cerebrovascular diseases (stroke) -- are the same for each age subgroup. • Taken together, heart disease, cancer, and stroke account for 3 out of 4 deaths of elderly Americans (Senate Special Committee on Aging, 1988). • Heart disease was the major cause of death in 1950, nearly 40 years ago. - Heart disease began to be appreciated as a killer in the 1930s and '40s. - Mortality due to heart disease has declined since the 1960s: -- But, we don't really understand the reasons for the improvement. -- For example, high blood pressure medications came after the decline (high blood pressure controls came after the decline in strokes, also).

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- Even though there have been major declines in mortality due to heart disease, it is still the leading cause of death for the elderly (NCHS, 1987).

- Heart disease accounted for 43% of all deaths among persons aged 75-84.

Overhead: Decrease in Mortality Due to Heart Disease

	55-65	85+
Males	17.3%	7.4%
Females	10%	7.4%

- Death rates for ischemic heart disease among men of all races decreased:
  - -- 17.3% for 55-64 year olds.
  - -- 7.4% for 85 and older.
  - -- Note that there's a significantly greater decline for the young-old cohort.

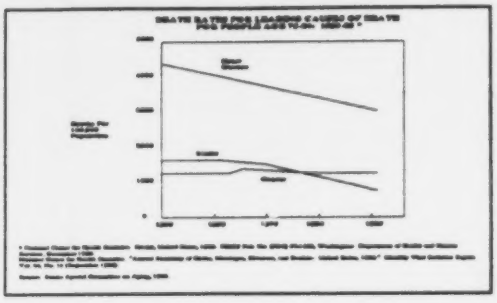
- For women, death rates due to heart disease decreased:
  - -- 10% for 55-64 year olds; not as dramatic as for men.
  - -- Approximately 7.4% for 85 and older; essentially the same as for men.

• Cerebrovascular mortality (stroke) decreased 7.2-40.3% in the 5 years between 1979 and 1984 for various sex-race-age subgroups, continuing a trend that started in the 1960s and picked up momentum in the 1970s (NCHS, 1987).

- Reasons for this decline are not fully understood (Senate Special Committee on Aging, 1988):
  - -- Part of the decline may be attributable to better control of hypertension.
  - -- Other factors may be better diagnosis and management, as well as rehabilitation of stroke victims.

- In 1985, stroke accounted for only 9% of mortality in the 75-84 age group.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Death Rates for Leading Causes of Death in People Aged 75-84: 1950-1984	• In contrast to heart disease and stroke, mortality rates from cancer (especially respiratory tract cancer) have increased since 1968 (NCHS, 1987):



- During the period 1979-1984, death rates for respiratory cancer in males increased from 4.1% to 18.3% for the various elderly age groups.
- Mortality rates for respiratory cancer were much higher for females, ranging from 26.9% to 43.3% in the various age categories.

• If cancer were eliminated as a cause of death, the average life span would be extended by less than 2 years because of the prevalence of heart disease (Senate Special Committee on Aging, 1988).

• On the other hand, eliminating deaths due to heart disease would add an average of 5 years to life expectancy at age 65, and would lead to a marked increase in the proportion of older persons in the population.

Activity. Preventive Strategies for Cardiovascular Disease (30 minutes):

- Divide into small groups of 4-5 persons each.
- Handout: Cardiovascular Disease Exercise
- Ask each group to respond to the Questions for Discussion for approximately 20 minutes.
- Reconvene all participants and ask each group to report on the results of their discussions (10 minutes).
- Record responses on a flipchart.

Questions for Discussion:

- What are the risk factors for cardiovascular disease?
- Which population sub-groups are at highest risk for each of the factors listed above?
- Discuss each of the factors in relation to preventive strategies that might be developed.
- Discuss each of the factors in terms of:
  - What additional epidemiological data is required to develop a prevention strategy?
  - Where can such information be obtained (e.g., existing databases)?

Handout: Cardiovascular Disease Fact Sheet

Optional Handout: Databases (from Resources Section)

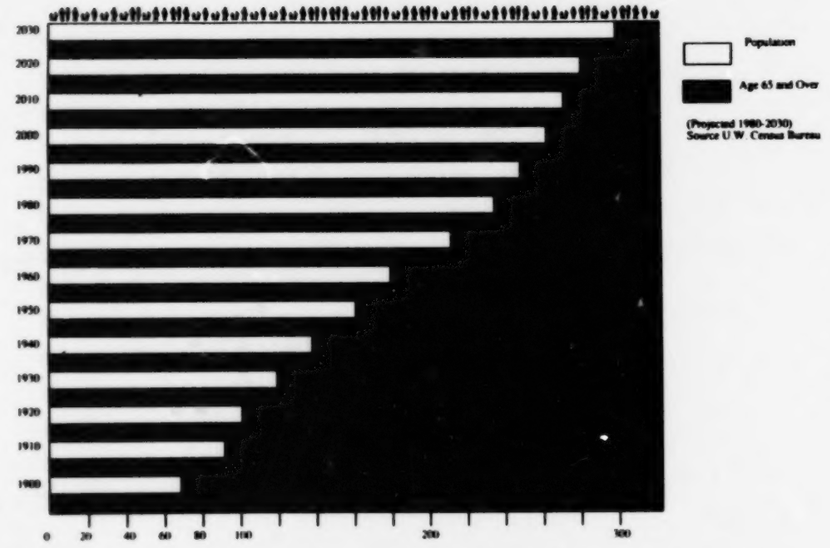
best copy available

IV. Overheads

Longevity

- 1890 25% lived to 65+
- 1985 70% lived to 65+
  30% lived to 80+

Growth Chart



Growth Chart. Bars show the number of persons age 65 and older compared with total population from 1900. The chart extends to the year 2030

Source: NIA, July 1983

Median Age of U.S. Population

Year	Median Age
1982	30.6
2000	36.3
2030	40.8
2080	42.8

Percentage of Persons Aged 65 and Over Who are Aged 85 and Over: 1980 to 2080

Year	Percent
1980	8.8
1982	9.1
1985	9.4
1990	10.5
2000	14.1
2010	16.7
2030	13.3
2050	23.8
2080	24.9

Source: Bureau of the Census (Spencer), 1984

The "Young-Old"

- Ages: 50s, 60s, early 70s.
- Relatively healthy and vigorous.
- May or may not be retired.
- Seeking meaningful uses of time.

The "Old-Old"

- Ages: mid-70s, 80, 90s.
- Some are active/vigorous.
- Most require supportive health and social services.
- May also require economic support.

Aging

"Aging doesn't necessarily mean a life that is sick, senile, sexless, spent or sessile."

Elderly Picture

- Female
- White
- Alone
- Unemployed
- Urban
- Chronically ill and impaired
- Institutionalized.

Selected Population Characteristics

- Gender
- Race
- Marital status and living arrangements
- Economic factors.

Ratio of Females to Males

- Total population of 65+ = 1.5 females to each male.

Ratio	Age
1.24:1	65-69
2.78:1	95-99
2.5: 1	100+

National Percentages of Race/Ethnicity

- 90% were White.
- 8% were Black.
- 2% were American Indian, Eskimo, Aleut, Asian, or Pacific Islander.
- Persons of Hispanic origin (who may be of any race) represented 3% of the population.

Source: AARP, 1987

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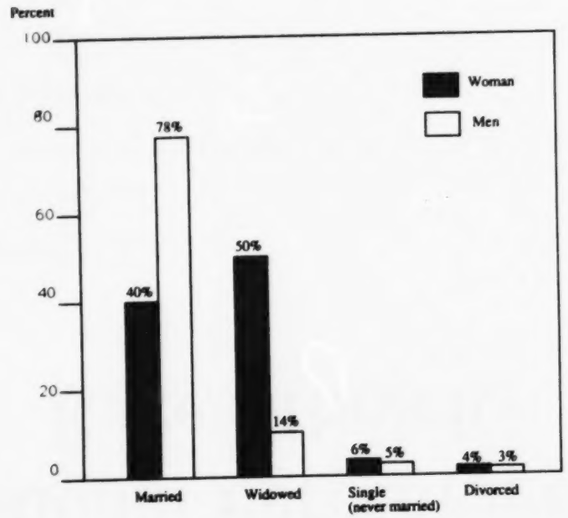
Marital Status



Source: AARP, 1985
Based on data from U.S. Bureau of the Census

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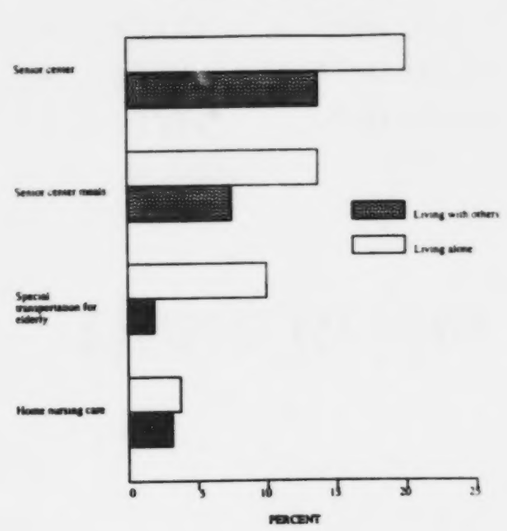
Older Brides

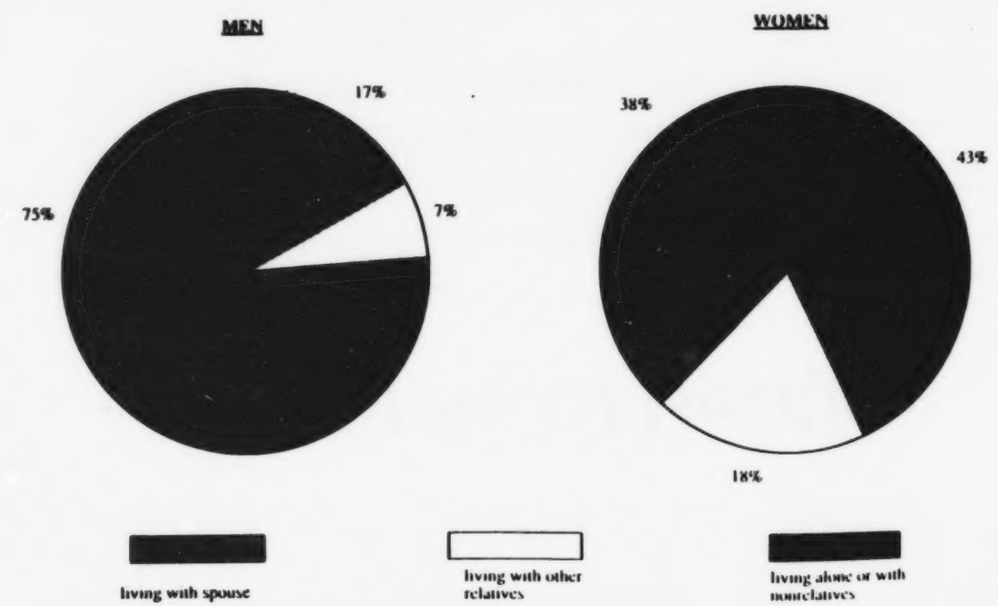
Number	Age
• 13,000	aged 65-69
• 7,000	aged 70-74
• 4,000	aged 75+

Percent of Noninstitutionalized Population Using Community Services



Source: NCHS, 1986

Living Arrangements of Persons 65+: 1986



Source: AARP, 1987

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Lack of Social Isolation

- 62% had not moved in 10 years.
- 32% had not moved in 25+ years.
- 11% live in retirement communities.
- 95% have and use telephones to maintain contacts.

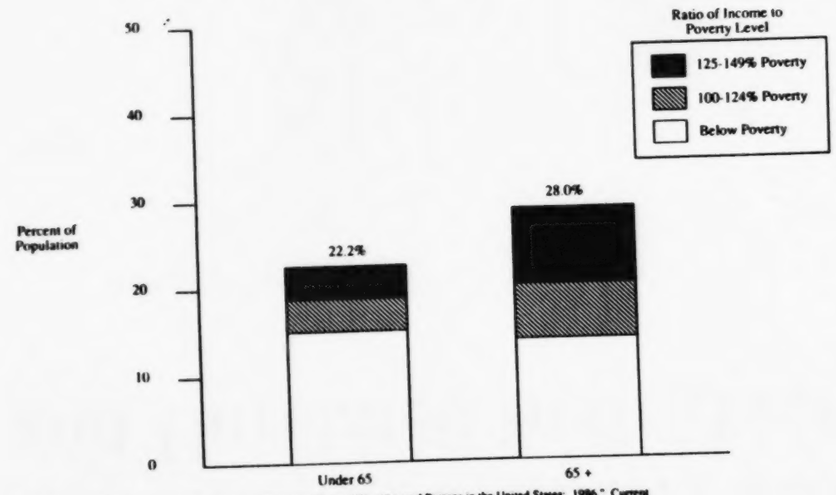
Older Population Residing in Nursing Homes

- 93% were aged 65 and older.
- 78% were 75 and older.
- 42% were 85+.

Potential Income Sources

- Earnings
- Savings
- Social Security
- Supplemental Social Security (SSI)
- Pensions
- Other:
  - Family support
  - Unemployment compensation
  - Veterans pensions
  - Bequests/gifts
  - Royalties

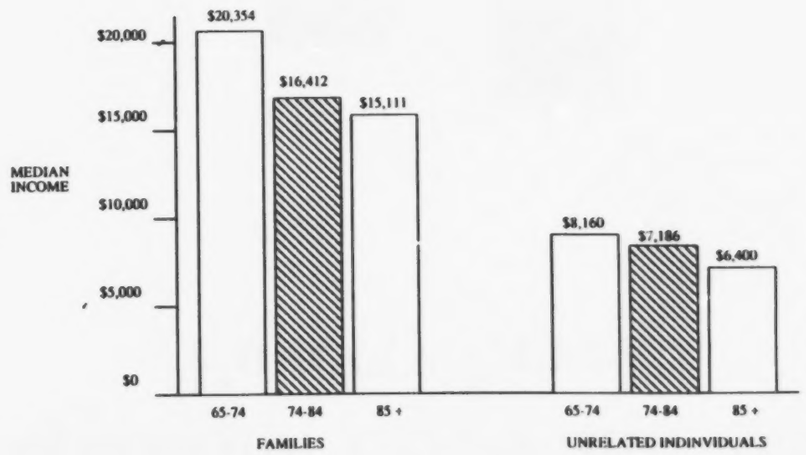
Percent of Elderly and Nonelderly Population Below and Near Poverty Level



* U.S. Bureau of the Census. "Money Income and Poverty Status of Families and Persons in the United States: 1986." Current Population Reports Series P-60, No. 157 (July 1987). Unpublished data from the MArch 1987 Current Population Survey.

Source: Senate Special Committee on Aging, 1988

Median Income of Elderly Families and Unrelated Individuals



* U.S. Bureau of the Census. Unpublished data from the Current Population Survey, March 1988, tabulated by the Congressional Research Service.

Source: Senate Special Committee on Aging 1988

Aging

- Gradual structural changes that occur with the passage of time.
- Not due to disease or accident.
- Eventually leads to increased probability of death as the organism grows older.

Senescence

Senescence: Process of growing old.

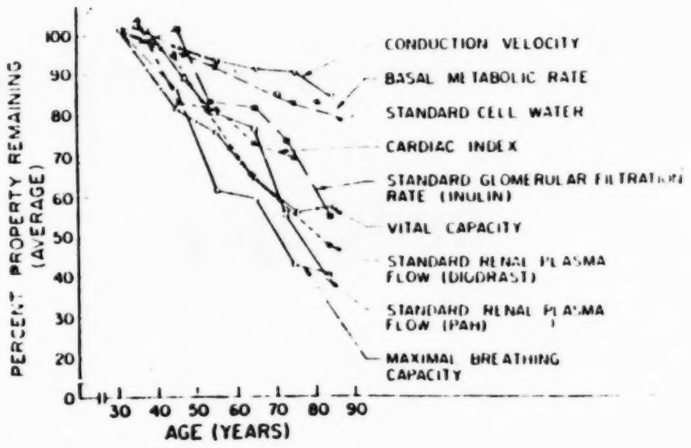
Characteristics of Aging

- Loss in functional capacity with age.
- Increased vulnerability to disease with age.
- Changes in chemical composition of the body.
- Wide variation among individuals in rate of aging.

Characteristics of Aging (continued)

- Reduced ability to respond adaptively to environmental change.
- Different organ systems age at different rates.
- Different organ systems age at different rates within the same individual.
- As age increases, the variance among individuals increases.

Average Age Differences in Physiological Functions Among Normal Male Subjects Aged 30 to 90 Years



Source: Reprinted by permission of the publisher from Comfort A. *The Biology of Senescence, Third Edition*, Copyright 1979, Elsevier Science Publishing Co., Inc.

Life Span

Life span is the maximum survival potential of a particular species.

Maximum Life Span

- Body size.
- Metabolic rate.
- Length of gestation.
- Age of first reproduction.
- Brain size.
- Cellular concentration of anti-oxidating mechanisms.
- Concentration of DNA repair mechanisms.
- Number of doublings that cells can undergo.
- Generation time.

Life Expectancy

Life expectancy is the average observed years of life from birth or from any stated age.

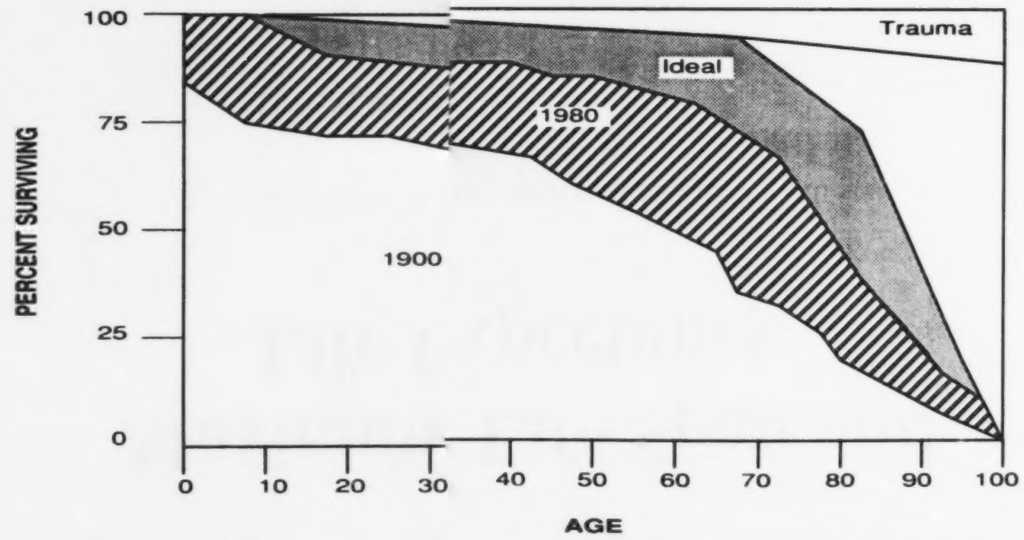
Maximum Life Span and Life Expectancy

- Maximum life span: 115-120 years.

- Life expectancy:

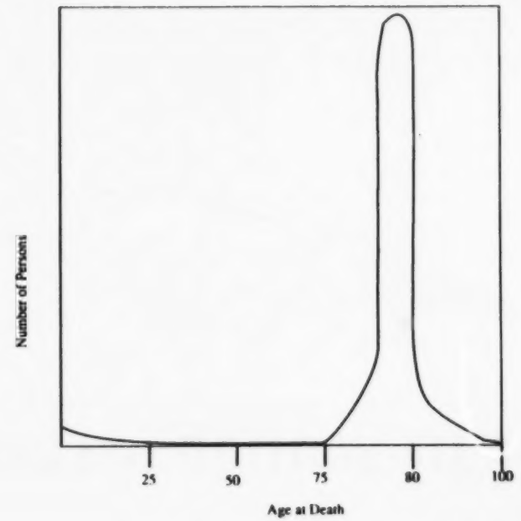
  - 78.3 years for females.
  - 70.7 years for males.

The Increasingly Rectangular Survival Curve



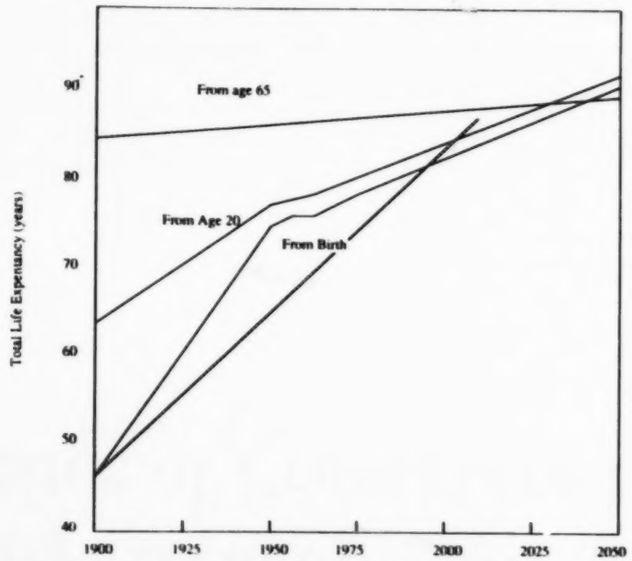
Source: Fries, JF. Aging, Natural Death, and Compression of Morbidity. *NEJM*. 303:130-135, 1980. Reprinted with permission.

Mortality According to Age, in the Absence of Premature Death



Source: Fries, JF. Aging, Natural Death, and Compression of Morbidity. *NEJM*. 303:130-135, 1980. Reprinted with permission.

Trends, Limits, and Convergences in Life



Source: Fries, JF. Aging, Natural Death, and Compression of Morbidity. *NEJM*. 303:130-135, 1980. Reprinted with permission.

Theories of Aging

Collagen theory
Cross-linking theory
Endocrine theory
Error catastrophe theory
Free-radical theory
Immunological theory
Metabolic theory
Programmed senescence theory
Rate of living theory
Somatic mutation theory
Waste product theory
Wear-and-tear theory

Three Theories of Aging

- Free-Radical Theory
- Immune Theory
- Neuro-Endocrine Theory

Some "Free-Radical" Diseases

- **Atherosclerosis**
- **Cancer**
- **Essential hypertension**
- **Alzheimer's disease**
- **Osteoarthritis**
- **Senile cataract**
- **Parkinson's disease**

Antioxidants

Free-radical scavengers = antioxidants

Epidemiology

Study of distribution and determinants of diseases and injuries

Implications

- Disease is not randomly distributed.
- Population subgroups have different frequencies of illness/injury.
- Frequency distributions provide foundation for:
  - Investigating causality
  - Planning prevention and control programs.

Systematic Approach

- Patterns of disease/injury within a community.
- Patterns of delivery of medical/health care services.

Calculation of Rates

$$\text{Rate} = \frac{\text{Number of events, cases, or deaths}}{\text{Population in same area}} \text{ in a time period}$$

Incidence Rate

$$\text{Incidence Rate} = \frac{\text{Number of new cases of disease}}{\text{Population at risk}} \text{ in a time period}$$

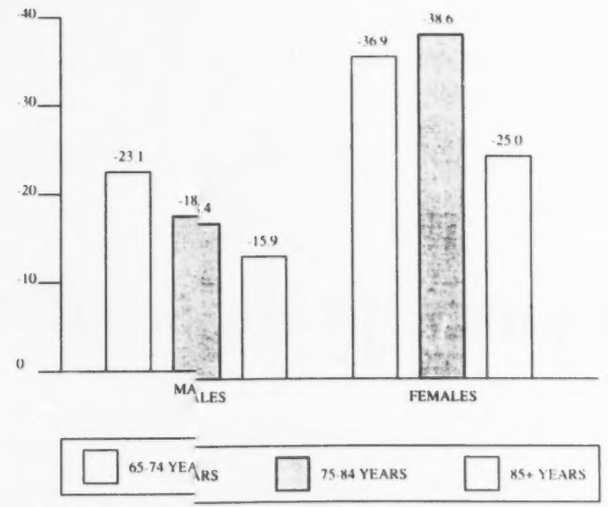
Prevalence Rate

$$\text{Prevalence Rate} = \frac{\text{Number of existing cases of a disease}}{\text{Total Population}} \text{ in a time period}$$

Compression of Morbidity

- Period of diminished vigor will decrease.
- Chronic illness will occupy smaller proportion of lifespan.
- Need for medical care in later life will decrease.

Percent Decline in Death Rates for Older People, by Age and Sex 1950-1985

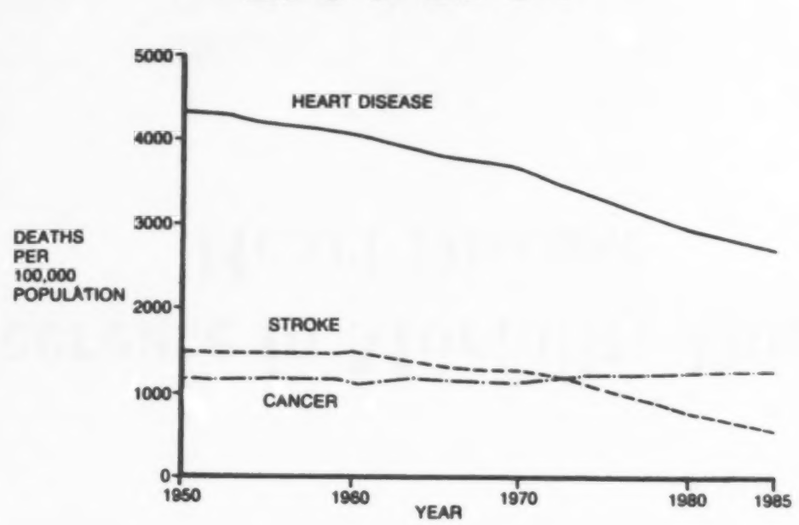


Source: Senate Special Committee on Aging, 1988.

Decrease in Mortality Due to Heart Disease

	55-65	85+
Males	17.3%	7.4%
Females	10%	7.4%

Death Rates for Leading Causes of Death in People Aged 75-84: 1950-1984



Source: Senate Special Committee on Aging, 1988

V. Handouts

best copy available

Number and percent distributions of resident population by age, according to race and sex: United States, 1970–85

Race, sex, and age	1970		1980		1981		1982		1983		1984		1985	
	Number in thousands	Percent distribution	Number in thousands	Percent distribution	Number in thousands	Percent distribution	Number in thousands	Percent distribution	Number in thousands	Percent distribution	Number in thousands	Percent distribution	Number in thousands	Percent distribution
Total[1]														
All ages	224,567	100.0	226,546	100.0	229,348	100.0	231,788	100.0	234,023	100.0	236,495	100.0	238,740	100.0
55–64 years	21,448	9.6	21,703	9.6	21,938	9.6	22,113	9.5	22,234	9.5	22,314	9.4	22,334	9.4
65 years and over	25,134	11.2	25,549	11.3	26,281	11.5	26,828	11.6	27,473	11.7	27,966	11.8	28,530	12.0
65–74 years	15,328	6.8	15,581	6.9	15,950	6.9	16,145	7.0	16,504	7.1	16,733	7.1	16,995	7.1
75 years and over	9,806	4.4	9,969	4.4	10,331	4.5	10,683	4.6	10,969	4.7	11,233	4.7	11,535	4.8
75–84 years	7,589	3.4	7,729	3.4	8,004	3.5	8,245	3.6	8,462	3.6	8,609	3.6	8,824	3.7
85 years and over	2,187	1.0	2,240	1.0	2,357	1.0	2,437	1.1	2,567	1.1	2,624	1.1	2,711	1.1
White male														
All ages	94,482	100.0	94,976	100.0	95,886	100.0	96,582	100.0	97,327	100.0	98,253	100.0	99,086	100.0
55–64 years	9,061	9.6	9,151	9.6	9,228	9.6	9,284	9.6	9,328	9.6	9,356	9.5	9,386	9.4
65 years and over	9,176	9.7	9,317	9.8	9,565	10.0	9,744	10.1	9,953	10.3	10,177	10.3	10,380	10.5
65–74 years	5,987	6.3	6,088	6.4	6,230	6.5	6,301	6.6	6,491	6.7	6,589	6.7	6,720	6.8
75 years and over	3,178	3.4	3,221	3.4	3,325	3.5	3,443	3.6	3,502	3.6	3,578	3.6	3,670	3.7
75–84 years	2,562	2.7	2,600	2.7	2,683	2.8	2,756	2.9	2,826	2.9	2,897	2.9	2,975	3.0
85 years and over	617	0.7	621	0.7	642	0.7	687	0.7	676	0.7	681	0.7	695	0.7
Black male														
All ages	12,648	100.0	12,586	100.0	12,837	100.0	13,079	100.0	13,279	100.0	13,480	100.0	13,683	100.0
55–64 years	845	6.8	854	6.8	863	6.7	871	6.7	911	6.9	927	6.9	939	6.9
65 years and over	854	6.9	848	6.7	862	6.7	871	6.7	904	6.8	922	6.8	940	6.9
65–74 years	564	4.5	567	4.5	588	4.6	588	4.4	584	4.5	608	4.5	619	4.5
75 years and over	290	2.3	281	2.2	294	2.3	302	2.3	310	2.3	314	2.3	321	2.3
75–84 years	238	1.9	228	1.8	239	1.9	245	1.9	247	1.9	258	1.9	256	1.9
85 years and over	52	0.4	53	0.4	55	0.4	58	0.4	63	0.5	63	0.5	65	0.5
White female														
All ages	99,253	100.0	99,835	100.0	100,768	100.0	101,485	100.0	102,286	100.0	103,047	100.0	103,762	100.0
55–64 years	10,216	10.3	10,325	10.3	10,419	10.3	10,473	10.3	10,472	10.2	10,471	10.2	10,438	10.1
65 years and over	13,621	13.7	13,848	13.9	14,240	14.1	14,540	14.3	14,840	14.5	15,081	14.6	15,353	14.8
65–74 years	7,841	7.9	7,861	8.0	8,107	8.0	8,217	8.1	8,350	8.2	8,430	8.2	8,529	8.2
75 years and over	5,780	5.8	5,987	5.9	6,133	6.1	6,323	6.2	6,490	6.3	6,651	6.5	6,824	6.6
75–84 years	4,373	4.4	4,457	4.5	4,608	4.6	4,740	4.7	4,818	4.7	4,933	4.8	5,045	4.9
85 years and over	1,407	1.4	1,440	1.4	1,525	1.5	1,583	1.6	1,672	1.6	1,718	1.7	1,779	1.7
Black female														
All ages	13,882	100.0	14,046	100.0	14,316	100.0	14,573	100.0	14,793	100.0	14,991	100.0	15,204	100.0
55–64 years	1,044	7.5	1,059	7.5	1,085	7.6	1,104	7.6	1,120	7.6	1,131	7.5	1,144	7.5
65 years and over	1,230	8.9	1,242	8.8	1,282	9.0	1,313	9.0	1,351	9.1	1,374	9.2	1,403	9.2
65–74 years	766	5.5	776	5.5	788	5.5	788	5.5	824	5.6	833	5.6	845	5.6
75 years and over	464	3.3	466	3.3	494	3.5	515	3.5	527	3.6	541	3.6	559	3.7
75–84 years	360	2.6	360	2.6	382	2.7	400	2.7	398	2.7	408	2.7	419	2.8
85 years and over	104	0.8	106	0.8	112	0.8	115	0.8	129	0.9	133	0.9	140	0.9

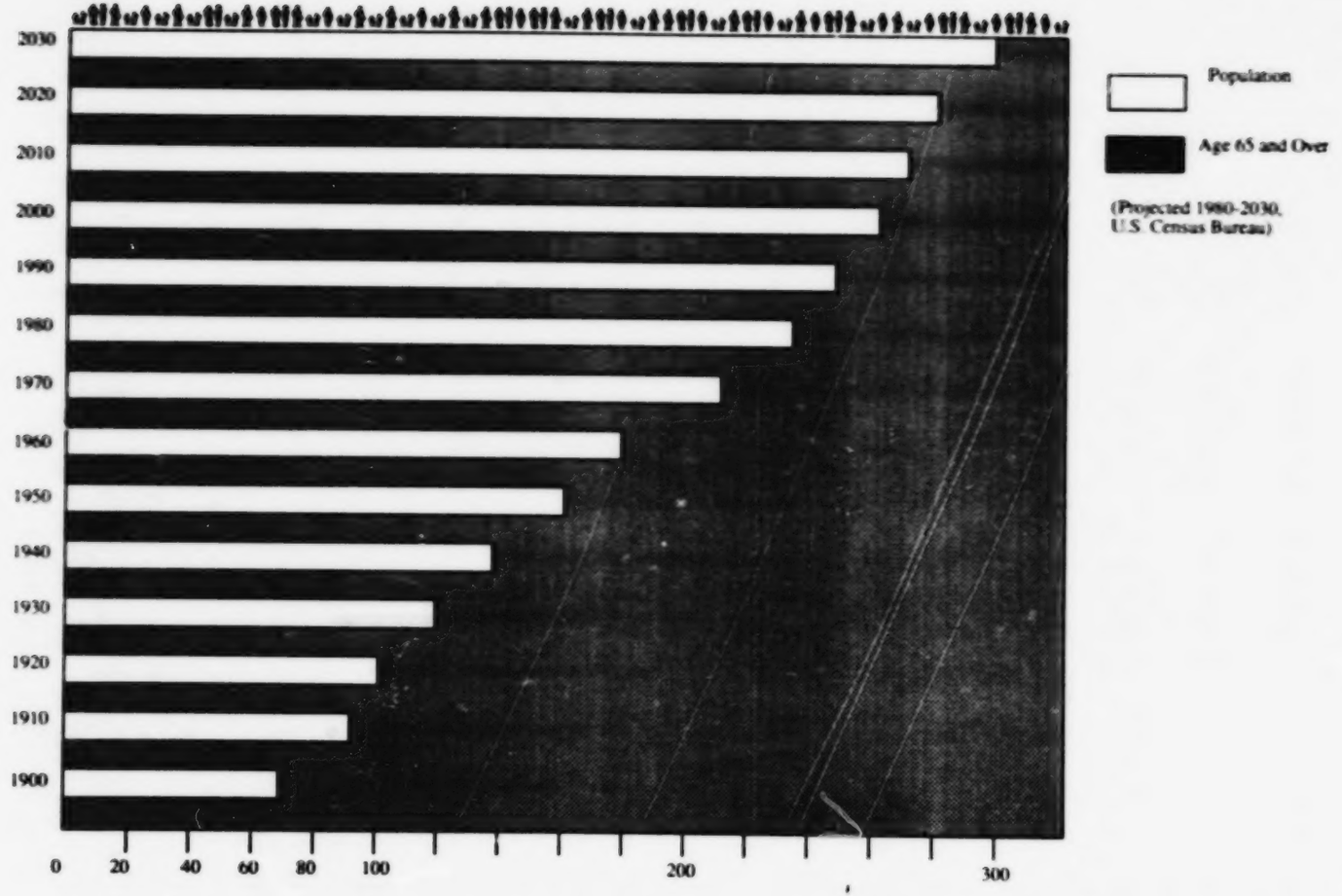
[1] Includes races other than white and black.

NOTE: 1980 population enumerated as of April 1; all other years estimated as of July 1.

U.S. Bureau of the Census. Current Population Reports, Series P-25 Nos. 917, 929, 949, 986 and 991. Washington: U.S. Government Printing Office, U.S. Bureau of the Census, unpublished data.

Source: NCHS, 1986

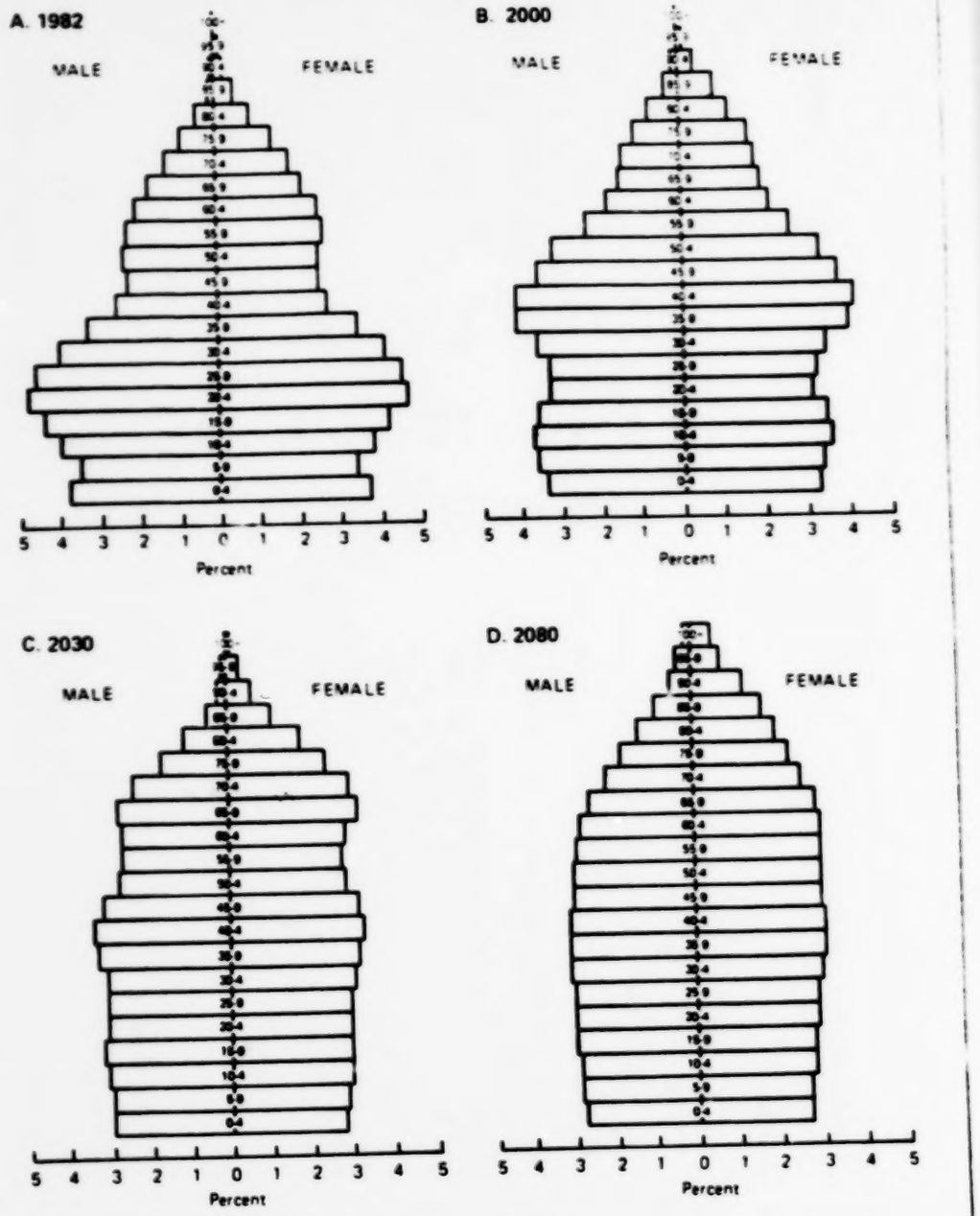
GROWTH CHART



Growth Chart - Bars show the number of persons age 65 and older compared with total population from 1900. The chart extends to the year 2030

Source: NIA, 1983

Percent Distribution of the U.S. Population, by Age and Sex



Source Bureau of the Census, 1984

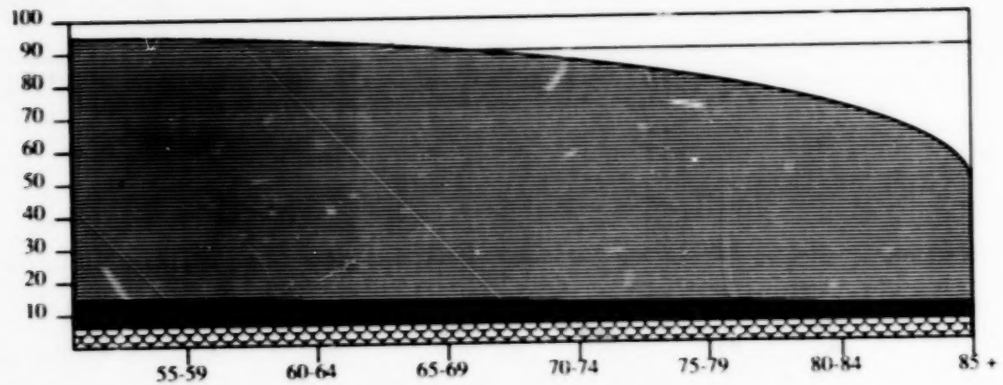
LIFE EXPECTANCY AT SPECIFIED AGES, BY RACE AND SEX: UNITED STATES, 1970, 1979 AND 1984

Age and Year	All Races [1]			White			Black		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
	Remaining life expectancy in years								
At Birth									
1970	70.8	67.1	74.7	71.7	68.0	75.6	64.1	60.0	68.3
1979	73.9	70.0	77.8	74.6	70.8	78.4	68.5	64.0	72.9
1984	74.7	71.2	78.2	75.3	71.8	78.7	69.7	65.6	73.7
At 65 Years									
1970	15.2	13.1	17.0	15.2	13.1	17.1	14.2	12.5	15.7
1979	16.7	14.3	18.7	16.8	14.4	18.8	15.5	13.5	17.3
1984	16.8	14.6	18.6	16.9	14.6	18.7	15.5	13.5	17.2
At 75 Years									
1970	9.6	8.3	10.5	9.5	8.3	10.4	9.9	8.8	10.9
1979	10.7	9.1	11.9	10.7	9.0	11.9	10.4	9.0	11.6
1984	10.7	9.0	11.8	10.7	9.0	11.8	10.4	8.9	11.3
At 85 Years									
1970	5.8	5.3	6.1	5.6	5.2	5.9	6.6	5.9	7.0
1979	6.3	5.4	6.8	6.2	5.3	6.8	6.1	5.0	6.9
1984	6.1	5.2	6.5	6.0	5.1	6.5	6.8	5.8	7.3

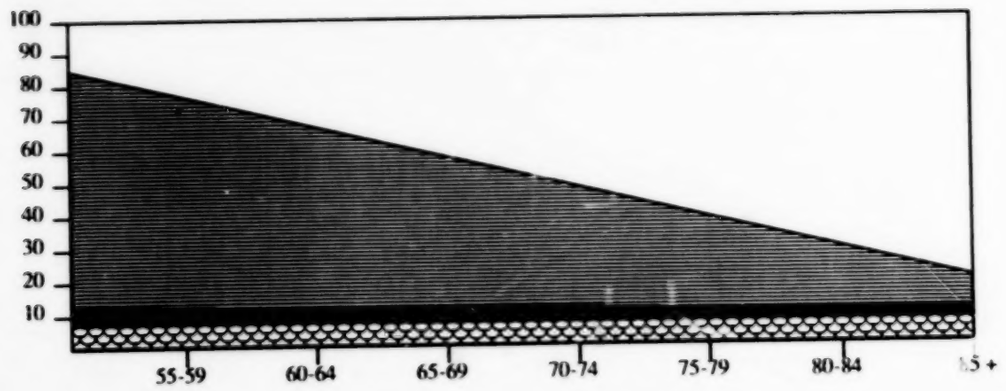
1 Includes races other than White and Black

Source: National Center for Health Statistics: Vital Statistics of the United States, Vol.II, Mortality, Part A. Public Health Services. Washington

MARITAL STATUS OF MALES AGED 55 AND OVER, 1980



MARITAL STATUS OF FEMALES AGED 55 AND OVER, 1980



LEGEND STATUS Single Divorced Married Widowed

Source: Special Committee on Aging, 1985

MEDIAN INCOME OF PERSONS AGE 65 AND OLDER BY AGE, RACE, HISPANIC ORIGIN, AND SEX: 1986 *

Race and Hispanic origin	Both sexes			Male			Female		
	65 plus	65-69	70 plus	65 plus	65-69	70 plus	65 plus	65-69	70 plus
All Races	$8,154	$9,407	$7,729	$11,544	$13,304	$10,581	$6,425	$6,671	$6,346
White	8,544	10,032	8,083	12,131	14,041	11,130	6,738	7,045	6,639
Black	5,030	5,455	4,901	6,757	7,078	6,577	4,508	4,625	4,464
Hispanic 1	5,510	5,655	5,400	7,369	8,083	7,060	4,583	4,466	4,622

* U.S. Bureau of the Census." Money Income and Poverty Status of Families and Persons in the United States: 1986." Current Population Reports Series P-60, No. 157 (July 1987). Unpublished data from the March 1987 Current Population Survey.

1 Hispanic persons may be of any race.

Source: Senate Special Committee on Aging, 1988

Biology of Aging Exercise

1. Human functional capacity diminishes with age, beginning at about age:

   a. 20
   b. 30
   c. 40
   d. 50

2. The maximum life span has remained constant throughout recorded history at about:

   a. 85
   b. 95
   c. 105
   d. 115

3. Which Theory of Aging is considered most likely to answer the question, "What causes aging?"

   a. Immunologic theory of aging
   b. Free-radical theory of aging
   c. Neuro-endocrine theory of aging
   d. All of the above
   e. None of the above

4. With the process of aging, the incidence of autoimmune diseases...

   a. Increases
   b. Decreases
   c. Decreases rapidly
   d. Stays the same

5. Food restriction in many species...

   a. Decreases life span
   b. Results in more disease for the species
   c. Increases life span
   d. Has no effect on life span

Biology of Aging Exercise

6. Changes in the immune system with age include:

   a. Decrease in supressor-T cells
   b. Loss of thymic hormones
   c. Increase in helper-T cells
   d. Decreased natural and acquired tolerance
   e. All of the above

7. Between the ages of 30 and 70, the average person...

   a. Loses 10-20% of the body's muscle mass
   b. Loses 30-40% of the body's muscle mass
   c. Loses 50% of the body's muscle mass
   d. Keeps the same amount of the body's muscle mass throughout life

8. Effects of age on performance include:

   a. As age increases, the variance among individuals increases
   b. Age changes are greater in complex, than simple performances
   c. Wide variation among individuals in rate of aging
   d. Two of the above
   e. All of the above

9. Diseases associated with free-radical molecular activity

   a. Atherosclerosis
   b. Cancer
   c. Parkinson's disease
   d. All of the above
   e. None of the above

10. Reduction in the thymus by age 50 contributes most to the...

   a. Loss of muscle tissue
   b. Skin wrinkling
   c. Reduction in T-cell immunity
   d. Alzheimer's Disease

CHANGES IN THE IMMUNE SYSTEM WITH AGE

Lymphocytes

- No change in total number
- Decrease in B-cell maturation
- Decrease in suppressor-T cells
- Increase in helper-T cells

Complement

- Deficient complement levels associated with age, neoplasia, and infection

Antibody

- Lack of thymic-dependent antibody response to new antigens
- Decreased primary response to new antigens
- Increased globulins associated with secondary response and autoimmunity (benign monoclonal gammopathies)
- Increase in idiopathic antibodies to receptors

Immune complexes (Ag, Ab, C)

- Present in all obsolescent glomeruli
- Present in all vessel injury
- Present in many tissues previously injured
- Present as amyloid, either as light chains or in complexes withother proteins and carbohydrates

Tolerance

- Decreased natural and acquired tolerance

Lymphoid tissue

- Involution of thymus
- Loss of thymic hormones
- Atrophy, hypertrophy of some lymph nodes
- Hyperplasia of selected lymphoid elements, particularly in bone marrow
- Infiltration of lymphoid tissue in various organs (e.g., thyroid)

Source: Adapted from Kiag, D.W., Fenogho, C.M., Lefkowitch, J.H. *General Pathology: Principles and Dynamics*

Handout

Scenarios of the Future

Scenario #1*

Zardoz (a science fiction movie of the 1960s):

- Mechanisms to ensure immortality were found.
- The outcome (cost) was that no further generations could be allowed.

Scenario #2*

Methusela (Heinlein novel):

- Protracted individual life spans become common, with means of preventing or radically deferring malignancy, atherosclerosis, cerebrovascular disease, viral and other infectious disease.
- But will Methusela be demented, deaf, blind, and unable to walk without pain as a result of asymmetries in medical advances?

Scenario #3*

Vonnegut:

- Longevity, when it escapes biologic control, will have to be controlled by culture/society.
- Voluntary determination of longevity could become either an individual or social responsibility.

QUESTIONS FOR DISCUSSION

1. Which of these scenarios is most likely?
2. What are the major ethical issues (e.g., euthanasia, rationing of health care, etc.) that arise from advances in knowledge of the biology of aging?
3. Whar are the implications for public health policy and practice?

* Adapted from L. White, National Institute on Aging.

HANDOUT: CORRECT Answers to Biology of Aging Exercise

1. Human functional capacity diminishes with age, beginning at about age:

   a. 20
   b. 30
   c. 40
   d. 50

   Human functional capacity diminishes with age beginning at about age 30.

2. The maximum life span has remained constant throughout recorded history at about:

   a. 85
   b. 95
   c. 105
   d. 115

   The maximum life span has remained constant throughout recorded history at about 115 years. Claims of enclaves with longevity past these ages have been demonstrated to be inaccurate. (Leaf, A. Long-lived population: Extreme old age. J. Am. Geriatr. Soc. 1982; 30:485-7.)

3. Which Theory of Aging is considered most likely to answer the question, "What causes aging?"

   a. Immunologic theory of aging
   b. Free-radical theory of aging
   c. Neuro-endocrine theory of aging
   d. All of the above
   e. None of the above

   Scientists feel no unitary theory is adequate to explain all aspects of aging. A combination of theories is needed to explain this complex subject.

4. With the process of aging, the incidence of autoimmune diseases...

   a. Increases
   b. Decreases
   c. Decreases rapidly
   d. Stays the same

   Decline in the ability of the immune system to recognize and tolerate "self" antigens, resulting in increase in autoimmune diseases such as rheumatoid arthritis.

HANDOUT: CORRECT Answers to Biology of Aging Exercise (Continued)

5. Food restriction in many species...

   a. Decreases life span
   b. Results in more disease for the species
   c. Increases life span
   d. Has no effect on life span

   By cutting the caloric, but not the nutritional, intake of rats to 60% of what they would normally eat, rat's average life span can be increased by 50% compared with rats on a normal diet.

6. Changes in the immune system with age include:

   a. Decrease in supressor-T cells
   b. Loss of thymic hormones
   c. Increase in helper-T cells
   d. Decreased natural and acquired tolerance
   e. All of the above

   \The thymus, the master gland that controls the production of white blood cells, is one of the first organs in the body to reach old age. The thymus shrinks away until it is almost invisible by age 50. This effects a decrease in supressor-T cells and an increase in helper-T cells. Natural and acquired tolerance is also reduced.

7. Between the ages of 30 and 70, the average person...

   a. Loses 10-20% of the body's muscle mass
   b. Loses 30-40% of the body's muscle mass
   c. Loses 50% of the body's muscle mass
   d. Keeps the same amount of the body's muscle mass throughout life

   Between the ages of 30 and 70, the average person loses 30-70% of the body's muscle mass. Exercise can retard these changes by as much as 20 years.

HANDOUT: CORRECT Answers to Biology of Aging Exercise (Continued)

8. Effects of age on performance include:

   a. As age increases, the variance among individuals increases
   b. Age changes are greater in complex, than simple performances
   c. Wide variation among individuals in rate of aging
   d. Two of the above
   e. All of the above

Observed changes of aging repeatedly demonstrate that as age increases, the variance among individuals increases. Age changes are greater in complex performance than in simple performances, and there is a wide variation among individuals in rate of aging.

9. Diseases associated with free-radical molecular activity

   a. Atherosclerosis
   b. Cancer
   c. Parkinson's disease
   d. All of the above
   e. None of the above

Free-radicals are short-lived, highly reactive products of metabolism.

Free-radical changes in biomolecules may be fundamental to most of the age-dependent diseases. Free-radicals can mutate and modify DNA, proteins, and phospholipids.

10. Reduction in the thymus by age 50 contributes most to the...

   a. Loss of muscle tissue
   b. Skin wrinkling
   c. Reduction in T-cell immunity
   d. Alzheimer's Disease

The thymus is the master gland that controls the production of white blood cells. When the thymus declines in size at around age 50, it decreases the supressor-T cells and increases helper-T cells, which attributes to an increased incidence of disease with age.

Handout

Death Rates for Older Persons, By Age, Sex, and Race: Selected Years, 1950-1985*

(rates are deaths per 1,000 resident population ins specified group)

Age, sex and race	1950[1]	1960[1]	1970	1980	1985[2]	Percent change 1950-70	Percent change 1970-85	Percent change 1950-85
All races, both sexes:								
65-74	40.7	38.2	35.8	29.9	28.4	-12.0	-20.7	-30.2
75-84	93.3	87.5	80.0	66.9	64.1	-14.3	-19.9	-31.3
85+	202.0	198.6	175.4	159.8	154.9	-13.2	-11.7	-23.3
All races, male:								
65-74	49.3	49.1	48.7	41.1	37.9	-1.2	-22.2	-23.1
75-84	104.3	101.8	100.1	88.2	85.1	-4.0	-15.0	-18.4
85+	216.4	211.9	197.7	188.0	182.1	-8.6	-7.9	-15.9
All races, female:								
65-74	33.3	28.7	25.8	21.4	21.0	-22.5	-18.6	-36.9
75-84	84.0	76.3	66.8	54.4	51.6	-20.5	-22.8	-38.6
85+	191.9	190.1	163.5	147.5	143.9	-14.8	-12.0	-25.0
White, male:								
65-74	48.6	48.5	48.1	40.4	37.2	-1.0	-22.7	-23.5
75-84	105.3	103.0	101.0	88.3	85.2	-4.1	-15.6	-19.1
85+	221.2	217.5	203.9	191.0	188.4	-7.8	-8.6	-15.7
White, female:								
65-74	32.4	27.8	24.7	20.7	20.3	-23.8	-17.8	-37.3
75-84	84.8	77.0	67.0	54.0	51.3	-21.0	-23.4	-39.5
85+	196.8	194.8	167.3	149.8	148.8	-15.0	-12.3	-25.4
Black, male:								
65-74	53.1	58.0	58.0	51.3	48.5	+9.2	-16.4	-8.7
75-84	101.0[3]	86.1	94.5	92.3	92.9	+2.7[4]	-1.7	+4.2[5]
85+		148.4	144.2	161.0	153.5		+6.4	
Black, female:								
65-74	40.0	40.6	38.6	30.6	29.1	-3.5	-24.6	-27.2
75-84	83.5[3]	67.3	66.9	62.1	60.6	-5.9[4]	-9.4	-10.5[5]
85+		130.5	121.3	123.7	116.8		-3.7	

*National Center for Health Statistics. "Annual Summary of Births, Marriages, Divorces, and Deaths: United States, 1984." Monthly Vital Statistics Report Vol. 33, No. 13 (September 1985).
National Center for Health Statistics. "Changes in Mortality Among the Eldelry: United States, 1940-78, Supplement to 1980." Vital and Health Statistics Series 3, No. 22A (April 1984).
National Center for Health Statistics. Health, United States, 1986. DHHS Pub. No. (PHS) 87-1232, Washington: Department of Health and Human Services, December 1986.

[1]Includes deaths of nonresidents.
[2]Based on 10% sample of deaths.
[3]Figure is for persons 75 years or older
[4]Figure is for persons 75 years or older and is based on 1970 death rates of 103.7 and 78.6 for black males and females, respectively, age 75 years or older.
[5]Figure is for persons 75 years or older and is based on 1985 death rates of 105.2 and 74.7 for black males and females, respectively, age 75 years or older.

Source: Senate Special Committee on Aging, 1988.

DEATH RATES FOR TEN LEADING CAUSES OF DEATH AMONG OLDER PEOPLE, BY AGE: 1984
(rates per 100,000 population in age group)

Causes of Death	65+	65-74	75-84	85 +
All causes	5,102	2,848	6,399	15,224
Diseases of the heart	2,186	1,103	2,749	7,251
Malignant neoplasms	1,042	835	1,272	1,604
Cerebrovascular diseases	476	177	626	1,884
Chronic obstructive pulmonary diseases	199	141	270	331
Pneumonia and influenza	182	54	216	883
Diabetes	95	59	126	217
Accidents	87	50	107	257
Atherosclerosis	83	17	88	488
Nephritis, nephrotic syndrome, nephrosis	58	27	76	201
Septicemia	41	20	52	142
All other causes	654	365	816	1,965

Source: Senate Special Committee on Aging, 1988.

CARDIOVASCULAR DISEASE EXERCISE

Cardiovascular disease rates rise continuously with age, accounting for 50% of the deaths in the 65-69 age group and 69% in the 80+ group.

Although there has been a striking decline in deaths due to cardiovascular disease, it remains the major cause of death in the elderly.

Deaths among the elderly due to cardiovascular disease typically fall into 3 categories recognized by the International Classification of Diseases:

- Diseases of the heart
- Cerebrovascular disease
- Arteriosclerosis

Please discuss the following items with other members of your group.

1. What are the risk factors for cardiovascular disease?

   Factors whose presence is associated with an increased probability that disease will later develop are called *risk factors*.

2. Which population sub-groups are at highest risk for each of the factors listed above?

CARDIOVASCULAR DISEASE EXERCISE (continued)

3. What preventive strategies could be developed to address each of the risk factors for affected sub-groups?

   With *prevention* a dominant theme, it may be well to elaborate upon this word. In a narrow sense, prevention simply means inhibiting the development of a disease before it occurs. However, in current usage, the term has been extended to include measures that interrupt or slow the progression of disease. For this reason several levels of prevention are said to exist. *Primary* prevention (appropriate in the stage of susceptibility) is prevention of disease by altering susceptibility or reducing exposure for susceptible individuals; *secondary* prevention (applied in early disease, i.e., preclinical and clinical stages) is the early detection and treatment of disease; *tertiary* prevention (appropriate in the stage of advanced disease or disability) is the alleviation of disability resulting from disease and attempts to restore effective functioning.

4. What data would you require to develop a prevention strategy, and where would you find such information (e.g., which existing databases)?

CARDIOVASCULAR DISEASE FACT SHEET

The Cardiovascular Disease (CVD) Project at the University of Minnesota

One of the first studies of adults specifically designed to be longitudinal was initiated in 1947 under the leadership of Dr. Ancel Keys at the University of Minnesota Laboratory of Physiological Hygiene. A total of 281 business and professional men from Minneapolis and St. Paul were recruited for the study, which was "aimed at providing clues about etiology and evaluating the prognostic significance for future heart disease risk of characteristics observed in health" (Keys et al., 1961). The subjects, aged 45 to 54 years in 1947, spent one day each year at the laboratory for an examination that included a review of the interim history, physical examination, nude weight, chest roentgenogram, 12-lead electrocardiogram (ECG), urinalysis, and measurement of hemoglobin and serum cholesterol, as well as special tests that varied from year to year. These included cardiovascular responses to physical exercise, the cold pressor test,[1] cardiovasculaar responses to passive tilting, ballistocardiogram,[2] EEG, flicker-fusion frequency,[3] basal metabolism, body density, subcutaneous fatness, sugar, uric acid and protein-bound iodine in the blood, anthropometry, and evaluations of personality, based primarily on scores on the Minnesota Multiphasic Personality Inventory (MMPI). Only a part of these longitudinal observations have been published. Leon and her colleagues (1979) reported stability coefficients for the MMPI ranging from .277 (scale 8) to .736 (scale 0) in a sample of 71 men measured at middle age in 1947 and then again 30 years later. In addition, the general profile configuration and two-point code types remained remarkably stable and within normal limits over the 30 years from middle to old age.

During the first 15 years of the study (1947-1962), 32 deaths occurred (Keys et al., 1963). Although not all the data have been reported, the study was able to show that elevated serum cholesterol at the first examination and increased systolic blood pressure in the last pre-disease year were significant predictors of the development of coronary artery disease (CAD) and death. Average data over all pre-disease years showed significantly reduced risk among the men in the bottom quartile for diastolic, as well as systolic blood pressure; elevated blood-cholesterol levels were significantly prognostic for the development of CAD.

Keys et al. (1971) reported results in the same group of subjects over a 20-year interval. In 1968, 168 of the 221 living subjects were examined; in 1969, 151 out of 215; in 1970, 153 out of 212. As of 1970, nine of the original 281 subjects had been lost to follow-up, although some of the subjects who were located failed to come to the laboratory to be retested. Information about the health status of the subjects (aged 67-77 in 1970) was obtained periodically from correspondence with the men (49 living outside the state of Minnesota), from their wives, from their personal physicians, or from all three. Of the 60 men who had developed CAD, 42 died or suffered cardiac infarction. Among 20 variables studied, hyper-responsiveness on the cold pressor test, a high level of serum cholesterol, and elevated systolic blood pressure had significant predictive power for cardiac infarction or death from CAD, while smoking and relative body weight (actual weight expressed as a percentage of "standard" weight for sex, age, and height[4]) seemed unimportant as predictors, especially in subjects over age 65.

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[1]The rise in blood pressure following the immersion of one arm (or foot and leg) in ice water.

[2]A measurement related to the amount of blood ejected by the heart at each beat.

[3]The frequency of a flashing light perceived as a continuous stimulus

[4]"Standard weight," based on height, was derived from tales published by the Metropolitan Life Insurance Company (1959).

Source: Shock, Greulich, Andres, et al. 1984.

CARDIOVASCULAR DISEASE FACT SHEET (Continued)

Analysis of serial measurements of basal metabolism showed that the rate of decrease with advancing age is substantially less than that inferred from cross-sectional studies (Keys et al., 1973).

The availability of longitudinal observations permitted an evaluation of the changes in body weight after cessation of cigarette smoking (Brozek and Keys, 1957). The subjects were men who voluntarily stopped smoking cigarettes; their body weight was measured for two years before and three years after they stopped. A control group of men who continued smoking were matched in age, relative body weight, and actual body weight at the beginning of the first year of the five-year period, without reference to weight trends during the rest of the period. There was no significant difference during the two periods in the body weights of the men who continued to smoke, while those who stopped smoking gained, on the average, 8.2 pounds over the three years following the date they stopped.

There is also a brief report of a 30-year follow-up of these subjects. Obesity, as assessed by the Body Mass Index (wt/ht^2), was not significantly predictive of overall mortality or of death from CAD (Keys, 1980).

Heart Disease Mortality Among Persons 45–64 Years of Age

Background

Heart disease is the second leading cause of death among middle-aged persons (45–64 years of age) in the United States with a death rate of 269 per 100,000 in 1985, just below that for all cancers (283 per 100,000). Heart disease accounted for one-third of all deaths in this age group in 1985. Between 1970 and 1985, heart disease death rates among middle-aged persons have declined by about 3 percent per year for white men and minority women. The decline has been less rapid for white women and minority men (2 percent per year). Possible reasons for the decline in heart disease mortality include increased control of elevated blood pressure, smoking cessation, dietary changes, reduced serum cholesterol levels, and improvements in medical care (Stamler, 1985). Substantial geographic variation in the trends for heart disease mortality has been noted by several researchers (Davis et al., 1985; Wing et al., 1986; Ragland et al., 1988).

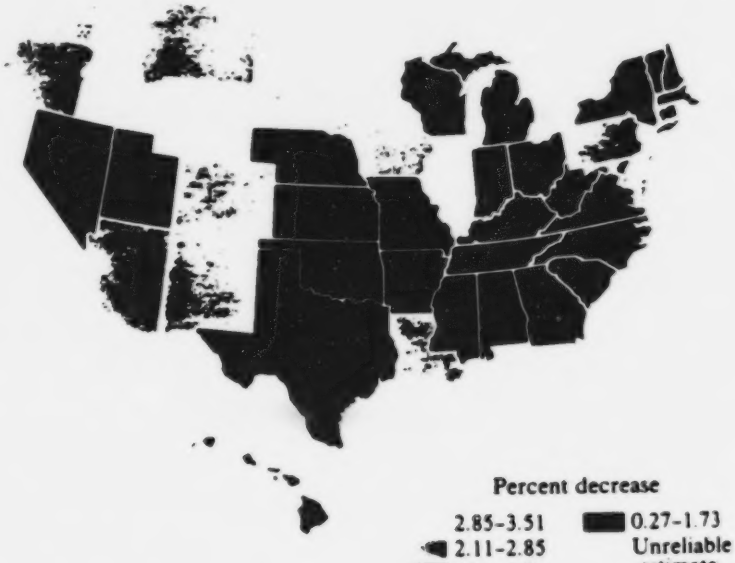
Throughout the period 1970–85 heart disease death rates have been lower for women than men and lower for white than minority persons. In 1983–85, among middle-aged persons the heart disease death rate was 29 percent higher for minority men than white men (523 versus 404 deaths per 100,000) and was twice as high for minority women as for white women (268 versus 132 deaths per 100,000). Among the white population, the heart disease death rate for men was three times as large as for women, and among persons of minority races, the rate for men was twice as large as for women.

3. Change in heart disease death rates among white males 45–64 years of age: 1970–85

NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics. Data from the Compressed Mortality File.

4. Change in heart disease death rates among white females 45–64 years of age: 1970–85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics. Data from the Compressed Mortality File.

5. Heart disease death rates among white males 45–64 years of age: 1983–85

Deaths per 100,000 population

301.4–344.0	439.6–528.5
347.1–401.4	Unreliable estimate
409.9–438.4	

NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics. Data from the Compressed Mortality File.

6. Heart disease death rates among white females 45–64 years of age: 1983–85

Deaths per 100,000 population

91.8–104.7	145.6–192.8
110.9–129.2	Unreliable estimate
130.8–142.3	

NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics. Data from the Compressed Mortality File.

Geographic Variation

■ Between 1970 and 1985, average annual percent declines in heart disease death rates varied among the States from 2.1 to 4.0 percent for white men (figure 3) and from 0.3 to 3.5 percent for white women (figure 4). South Dakota and Nevada experienced the least rapid annual declines for white men; Mississippi and Arkansas had the slowest annual declines for white women. Five of the 10 States with the least rapid declines for white men are in the South, as are 7 of the 10 States with the slowest declines for white women. Wyoming and Delaware experienced the most rapid annual declines in heart disease mortality for white men; Maine and Wyoming had the most rapid declines for white women. Other States with the most rapid declines were split among three regions of the country (West, Midwest, South) for white men and all four regions of the country for white women.

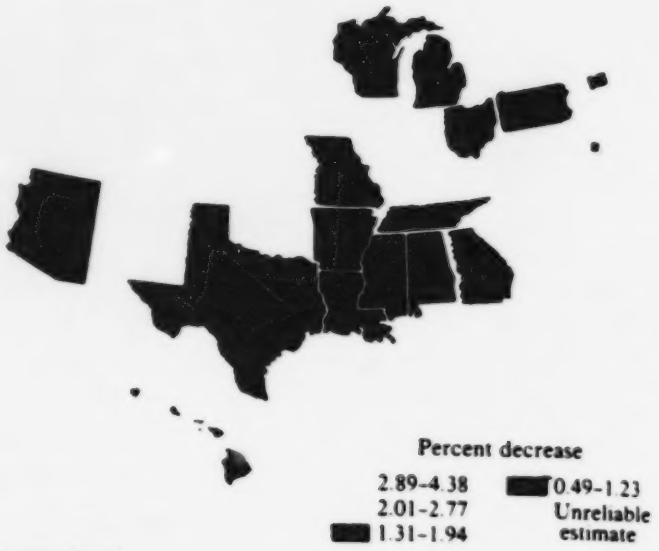
■ In 1983–85, among middle-aged white persons heart disease death rates per 100,000 population varied among the States from 301 to 528 for men and from 92 to 193 for women. Nine of the 10 States with the highest heart disease death rates for white men are in the South (figure 5). Four of these States also have among the least rapid annual declines during 1970–85 (West Virginia, Kentucky, Mississippi, Arkansas), and two of these States have among the most rapid annual declines (South Carolina, Louisiana). The highest heart disease death rates for white women were concentrated in four States bordering the Great Lakes and five southern States (figure 6). Most of the States with the lowest heart disease death rates for both middle-aged white men and women are in the West.

■ Heart disease death rates vary considerably among different racial groups. In 1979–81, among middle-aged men heart disease death rates were estimated at 656 deaths per 100,000 for the black population, 466 for whites, 327 for American Indians, and 207 for Asian and Pacific Islanders. Among middle-aged women the comparable heart disease death rates were 332 for blacks, 145 for whites, 121 for American Indians, and 62 for Asian and Pacific Islanders. Thus, heart disease death rates for minority

men and women within each State depend upon the State's racial distribution. Although the minority population is predominately black in most States, Asian and Pacific Islanders constitute a substantial proportion of the minority population in Hawaii, California, Washington, and Colorado. American Indians comprise a substantial percent of the minority population in Arizona, Oklahoma, and Washington.

- Among the 32 States with data shown for the middle-aged minority population, the average declines in heart disease death rates between 1970 and 1985 ranged from 0.5 to 4.4 percent per year for men and from 1.2 to 4.6 percent per year for women. Alabama and Mississippi experienced the slowest annual declines for minority men; Mississippi and Arizona had the slowest annual declines for minority women. Four of the six States with the slowest declines for minority men are in the South (figure 7). The six States with the slowest declines for middle-aged minority women are not concentrated in any particular region of the country (figure 8). Kansas and Illinois experienced the most rapid declines for minority men, whereas New Jersey and Illinois had the fastest declines for minority women.
- In 1983–85, among middle-aged minority persons heart disease death rates ranged from 267 to 669 deaths per 100,000 for men and from 130 to 387 deaths per 100,000 for women. The six States with the highest heart disease death rates for minority men are in the South (figure 9), as are five of the six States with the highest rates for minority women (figure 10). The lowest heart disease death rates for minority men and women are found in the West (Hawaii, Arizona, Colorado, Washington, California). The relatively large proportions of minorities other than black among the minority populations in these States probably account at least partially for their low heart disease death rates. Hawaii, where 95 percent of the minority population is Asian and Pacific Islander, has the lowest heart disease death rate for minority men and minority women. In fact, the rate for minority men in Hawaii is lower than any State rate for white men.
- State rankings on 1983–85 heart disease death rates for minority men are highly correlated with those for minority women ($r = .91$), as are

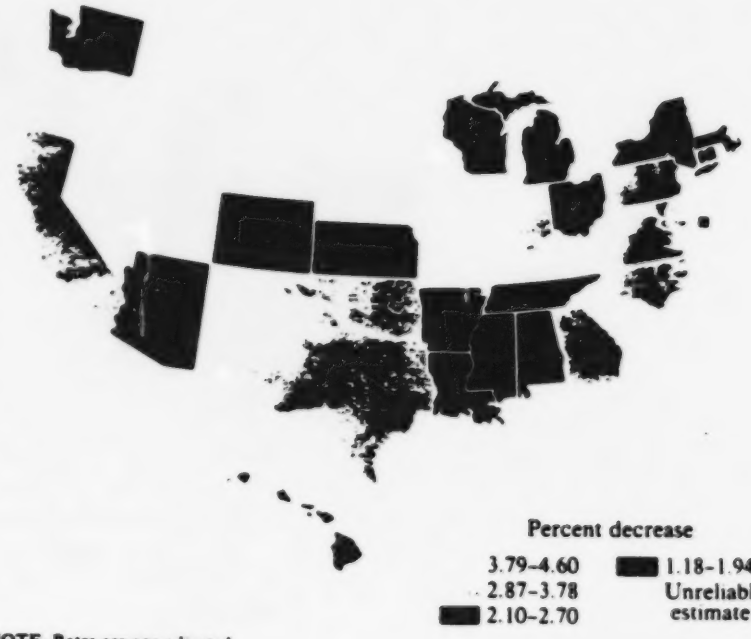
7. Change in heart disease death rates among minority males 45–64 years of age: 1970–85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File

8. Change in heart disease death rates among minority females 45–64 years of age: 1970–85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File

9. Heart disease death rates among minority males 45–64 years of age: 1983–85

Deaths per 100,000 population

266.9–390.5	630.2–668.8
396.4–523.3	Unreliable estimate
558.0–626.2	

NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics. Data from the Compressed Mortality File.

10. Heart disease death rates among minority females 45–64 years of age: 1983–85

Deaths per 100,000 population

129.6–195.2	308.4–387.1
215.1–267.1	Unreliable estimate
278.9–304.9	

NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics. Data from the Compressed Mortality File.

rankings on heart disease death rates for white men and women (r = .89). State rankings on average annual declines in heart disease mortality for men and women of each racial group are less correlated (r = .45 and r = .51, respectively).

- There is a moderate tendency for States that ranked high on heart disease death rates for minority women during 1970–72 also to have the most rapid declines in heart disease death rates for minority women during 1970–85 (r = .62). No correlation exists between State rankings on heart disease death rates in 1970–72 and rankings on subsequent changes in the death rates for minority men or white persons of either sex (r = .02–.26).
- State variation in heart disease risk factors, medical care, and socioeconomic factors may explain some of the State variation in heart disease mortality. Additional research is needed to understand more fully the reasons for the large State differentials in heart disease mortality.

References

Davis, W. B., C. G. Hayes, M. Knowles, W. B. Riggan, J. Van Bruggen, and H. A. Tyroler. 1985. Geographic variation in declining ischemic heart disease mortality in the United States, 1968–1978. *Am J Epidemiol* 122:657–672.

Ragland, K. E., S. Selvin, and D. W. Merrill. 1988. The onset of decline in ischemic heart disease mortality in the United States. *Am J Epidemiol* 127:516–531.

Stamler, J. 1985. The marked decline in coronary heart disease mortality rates in the United States, 1968–1981: a summary of findings and possible explanations. *Cardiology* 72:11–22.

Wing S., C. Hayes, G. Heiss, E. John, M. Knowles, W. B. Riggan, and H. A. Tyroler. 1986. Geographic variation in the onset of ischemic heart disease mortality in the United States. *Am J Public Health* 76:1404–1408.

VI. Resources

A. **Publications**

- *Data Resources in Gerontology: A Directory of Selected Information Vendors, Databases, and Archives*, The Gerontological Society of America, November 1987.

  Includes:

  - Sources of Database Access/Information Vendors
  - Bibliographic or Reference Databases
    - -- Federal government
    - -- Private-sector and government-funded general databases
    - -- Health, medicine, and biology databases
  - Archives

  Contact: The Gerontological Society of America
  Department 5018
  Washington, DC 20061-5018

- NACDA Publications (available at no charge):

  - *Catalogue of Data Available from NACDA*
  - *Guide to Resources and Services of the Inter-University Consortium for Political and Social Research (ICPSR)*
  - *ICPSR Summer Program in Quantitative Methods Announcement*
  - *NACDA Bulletin*
  - *ICPSR Bulletin*

  Contact: National Archive of Computerized Data on Aging (NACDA)
  Attn: Barbara Zimmerman
  P.O. Box 1248
  Ann Arbor, Michigan 48106

  (313) 763-5010

Vital and Health Statistics Series Descriptions From the National Center for Health Statistics

SERIES 1 **Programs and Collection Procedures**—Reports describing the general programs of the National Center for Health Statistics and its offices and divisions and the data collection methods used. They also include definitions and other material necessary for understanding the data.

SERIES 2 **Data Evaluation and Methods Research**—Studies of new statistical methodology including experimental tests of new survey methods, studies of vital statistics collection methods, new analytical techniques, objective evaluations of reliability of collected data, and contributions to statistical theory. Studies also include comparison of U.S. methodology with those of other countries.

SERIES 3 **Analytical and Epidemiological Studies**—Reports presenting analytical or interpretive studies based on vital and health statistics, carrying the analysis further than the expository types of reports in the other series.

SERIES 4 **Documents and Committee Reports**—Final reports of major committees concerned with vital and health statistics and documents such as recommended model vital registration laws and revised birth and death certificates.

SERIES 5 **Comparative International Vital and Health Statistics Reports**—Analytical and descriptive reports comparing U.S. vital and health statistics with those of other countries.

SERIES 10 **Data From the National Health Interview Survey**—Statistics on illness, accidental injuries, disability, use of hospital, medical, dental, and other services, and other health-related topics, all based on data collected in the continuing national household interview survey.

SERIES 11 **Data From the National Health Examination Survey and the National Health and Nutrition Examination Survey**—Data from direct examination, testing, and measurement of national samples of the civilian noninstitutionalized population provide the basis for (1) estimates of the medically defined prevalence of specific diseases in the United States and the distributions of the population with respect to physical, physiological, and psychological characteristics and (2) analysis of relationships among the various measurements without reference to an explicit finite universe of persons.

SERIES 12 **Data From the Institutionalized Population Surveys**—Discontinued in 1975. Reports from these surveys are included in Series 13.

SERIES 13 **Data on Health Resources Utilization**—Statistics on the utilization of health manpower and facilities providing long-term care, ambulatory care, hospital care, and family planning services.

SERIES 14 **Data on Health Resources: Manpower and Facilities**—Statistics on the numbers, geographic distribution, and characteristics of health resources including physicians, dentists, nurses, other health occupations, hospitals, nursing homes, and outpatient facilities.

SERIES 15 **Data From Special Surveys**—Statistics on health and health-related topics collected in special surveys that are not a part of the continuing data systems of the National Center for Health Statistics.

SERIES 20 **Data on Mortality**—Various statistics on mortality other than as included in regular annual or monthly reports. Special analyses by cause of death, age, and other demographic variables, geographic and time series analyses, and statistics on characteristics of deaths not available from the vital records based on sample surveys of those records.

SERIES 21 **Data on Natality, Marriage, and Divorce**—Various statistics on natality, marriage, and divorce other than as included in regular annual or monthly reports. Special analyses by demographic variables, geographic and time series analyses, studies of fertility, and statistics on characteristics of births not available from the vital records based on sample surveys of those records.

SERIES 22 **Data From the National Mortality and Natality Surveys**—Discontinued in 1975. Reports from these sample surveys based on vital records are included in Series 20 and 21, respectively.

SERIES 23 **Data From the National Survey of Family Growth**—Statistics on fertility, family formation and dissolution, family planning, and related maternal and infant health topics derived from a periodic survey of a nationwide probability sample of ever-married women 15-44 years of age.

For answers to questions about this report or for a list of titles of reports published in these series, contact:

Scientific and Technical Information Branch
National Center for Health Statistics
Public Health Service
Hyattsville, Md. 20782

301-436-8500

B. Databases

1. Data Systems of the National Center for Health Statistics

The National Center for Health Statistics is one of the major Federal statistical organizations. It has legislative authority to collect statistics on: (a) the extent and nature of illness and disability in the United States, including life expectancy, the incidence and prevalence of acute and chronic illness and disability, and infant and maternal mortality and morbidity; (b) determinants of health; (c) health resources; (d) use of health care resources, including use of ambulatory services, hospital care, nursing homes, and other long-term care facilities; (e) health care costs and financing; and (f) family formation, growth, and dissolution.

To carry out its mission, the Center conducts many annual, periodic, and longitudinal surveys to produce a wide range of health statistics. It obtains the records or computer files from states and other registration areas to publish the national data on vital statistics. It maintains an inventory of health facilities.

Data systems include:

Vital Registration System and Surveys

Death registration system
Fetal death reporting system
Birth registration system
Marriage registration system
Divorce registration system
Abortion reporting system

Surveys based on the registration system:

- National Mortality Followback Surveys
- National Maternal and Infant Health Survey (including the National Natality Surveys and the National Fetal Mortality Surveys)

Provider-Based Surveys

National Health Care Survey
National Master Facility Inventory
National Hospital Discharge Survey
National Nursing Home Survey
National Ambulatory Medical Care Survey

Longitudinal survey based on provider surveys:

- National Nursing Home Survey Followup

Population-Based Surveys

National Health Interview Survey
National Medical Care Utilization and Expenditure Survey
National Health and Nutrition Examination Surveys (including the National Health Examination Surveys)
Hispanic Health and Nutrition Examination Survey
National Survey of Family Growth

Longitudinal surveys based on population surveys:

- NHANES I Epidemiologic Followup Study
- Longitudinal Study of Aging

- United States Department of Health and Human Services
  National Center for Health Statistics.
  National Health and Nutrition Examination Surveys (NHANES)

These public use files are designed to be used either separately or in combination within each series. Most files contain basic demographic variables about the individual and household, including type of residence and housing, composition of the household, vehicles, languages spoken, income sources and amounts, food stamps and commodity foods, employment, age, race and national ancestry, sex, education, marital status, veteran status, and region of country.

National Health Examination Survey (NHES) I, 1959-1962

The precursor to NHANES, NHES I contains eight files on 7,800 adults age 18-79 years, covering topics such as symptoms of psychological distress, dental findings, diabetes, vision, cardiovascular findings, physical measurements, osteoarthritis and rheumatoid arthritis, and demographics. (The NHES I files, ICPSR 9201-9208, will be released by NACDA in the near future.) NHES II, 1963-1965, and NHES III, 1966-1970, contain data on children and youths only.

NHANES. In both NHANES I and II, approximately 30,000 persons were selected in multistage, stratified probability samples from the civilian, noninstitutionalized population of the United States, ages infancy through 74 years. Certain population groups thought to be at high risk of malnutrition were oversampled (the elderly, preschool children, persons with low income, and women of childbearing age). Only those 20,000 sample persons who were examined in a mobile examination center in addition to being interviewed are included on the public use files. Basic medical histories, medical examinations, and blood and urine laboratory work are provided for all of the examined persons. Data relevant to clinical signs of nutritional deficiency, such as anthropometric and cortical thickness measurements, dental and dermatological examinations, and dietary frequency and adequacy interviews, are available for most of the examined persons. Separate files are provided for food consumption intake in the previous 24 hours and model gram composition of the food itmes mentioned.

NHANES 1, 1971-1975. In addition to the basic data collected on all participants, age-specific subsamples were the focus of some interviews and measurements. In NHANES I, these included X-rays of the hands and wrists, measures of cortical thickness and bone density, goniometric measurements, ophthalmic examinations, and a more detailed health examination. A total of 6,900 adults ages 25-74 (3,900 from the original sample plus an augmentation sample of 3,000) were interviewed for a detailed medical history, general well-being and measures of depression, and health care needs. They were examined for arthritis and for respiratory and cardiovascular conditions and were given laboratory tests and measurements such as audiometric tests, chest, hip, and knee X-rays, pulmonary diffusion and tuberculin tests, electrocardiograms, and spirometric trials of respiratory performance and capacity. In addition, their drinking water was sampled. (ICPSR 7987, 8055-8070, 8138, and 8507).

NHANES II, 1976-1980. NHANES II revised the definition of infancy to include infants six months and older, and expanded the number of participants who were given the intensive health examination. It also added new examinations, questionnaires, and measurements for speech, allergies, medication and vitamin usage, serum lipids relevant to cardiovascular disease, and diagnostic impressions coded by the standard International Classification of Diseases, Adapted (ICDA). (ICPSR 8102-8106, 8182, 8183, 8237, 8626, 8722, 8867).

NHANES I Epidemiologic Followup Survey, 1982-1984. The files in NHANES I can also be linked with the NHANES I Epidemiologic Followup Survey, 1982-1984. The Epidemiologic Followup includes morbidity and mortality data from specific diseases and conditions on the 14,400 NHANES I participants who were ages 24-74 when first examined; 3,900 of these participants were ages 65 and over. In addition, changes in risk factors, morbidity, functional limitations, and institutionalization in the intervening period were ascertained, and the natural history of chronic diseases and functional impairments in an aging population were tracked. Re-contacts for the sample in 1982-1984 and for those 55 years and over in 1986 and 1987 (also planned for 1990) include personal interviews with the sample members (or proxies for those incapacitated or deceased); measurement of pulse rate, weight, and blood pressure; and the collection of hospital records, nursing home records, and death certificates. The data for 1982-1984 are currently available from NACDA and contain vital status on all 14,400 persons, interviews with 12,200 subjects then aged 32-84 or their proxies, 17,700 hospital records and 400 nursing home records, and multiple causes of death for 1,900 decedents. (ICPSR 8900).

Hispanic Health and Nutrition Examination Survey, 1982-1984. Data were collected on three subgroups of Hispanic Americans: the Cuban-American community in Dade County, Florida; the Puerto Rican community in the New York area including parts of New Jersey and Connecticut; and the Mexican-American community in Texas, Colorado, New Mexico, Arizona, and California. The total sample size that was both interviewed and examined was 11,700 Hispanic Americans, of which 7,500 were of Mexican background, 2,800 of Puerto Rican background, and 1,400 of Cuban background. The age range of the sample, as in NHANES II, was six months to 74 years. Public use files currently available are comprised of household interviews with the respondents, including demographics and health histories; supplementary questionnaires covering dietary practices, food frequency and total nutrient intake, alcohol consumption and drug abuse, and measures of depression; and clinical data from the medical examinations (physician examination, dental health, vision, and body measurements), as well as laboratory work (blood and urine, diabetes, and glucose tolerance). (ICPSR 8535).

NHANES III. This cycle of the survey is currently in the field. When the public use tapes are completed, NACDA will acquire them.

- United States Department of Health and Human Services
  National Cancer Institute.
  Cancer Surveillance and Epidemiology in the United States and Purerto Rico, 1973-1977 (ICPSR 8001)

This dataset, also known as Surveillance, Epidemiology, and End Results (SEER), contains demographic information and data on cancer variables such as diagnosis, primary site, histologic type, laterality, multiplicity within primary site at first episode, and diagnostic confirmation of cancer. The sample size for 1973-1977 was 381,000. The cross-sectional data aggregated over five years, were gathered from hospitals, clinics, private laboratories, private practitioners, nursing and convalescent homes, autopsies, and death certificates.

2. General Information About the National Archive of Computerized Data on Aging (NACDA)

How to obtain data from the NACDA Archive, contribute data, or get further information:

Requesters at universities and colleges that are member institutions of the Inter-University Consortium for Political and Social Research (ICPSR) will be referred to their ICPSR Oficial Representatives. Those not at member institutions will be quoted a price for the dataset based on the amount of data and documentation involved and the technical format needed.

NACDA supplies data in readily usable forms on magnetic tape that the user supplies or pays for. (When necessary, a user may make special arrangements and payments to have the dataset on computer print-out or floppy disks.) The data are accompanied by one copy of the documentation at no additional cost. The documentation includes information on the extent to which a dataset has been checked, processed, or further documented by the ICPSR archival staff.

Epidemiological Data for Gerontological and Geriatric Research

Several large-scale epidemiological investigations have recently begun to make their data available to other researchers for purposes such as secondary analyses on newly formulated health research issues, meta-analyses across several datasets, and exploratory work on variations in measurement methodologies and question wordings.

- Victor M. Hawthorne, et al.
  Tecumeseh Community Health Study, 1959-1969 (ICPSR 8969)

The research investigators have released selected variables from the first ten years of the now 30-year epidemiological study of the Tecumseh, Michigan community. A total of 11,600 sample persons were examined at least once in the 1957-1970 period of enrollment in the study. Clinical, interview, and administrative record data have continued to be collected from the original participants who remained in the area.

The longitudinal data in the ICPSR subset of the Tecumseh collection are comprised of the baseline medical history interview; medical examinations, clinical measurements, laboratory work, and electrocardiograms done in Round I (1959-1960), Round II (1962-1965), and Round III (1967-1969); and the mortality status of all persons at the time of attempted or actual contact in Round III. The major variable groups include demographic information, family history of major diseases, systematic review of present and past symptoms and conditions, smoking and drinking habits, physical examination, measurements and laboratory work, and electrocardiogram results. The file contains data for the 8,600 members of the community who were first examined at Round I (out of 8,800 total residents in the community). The number of elderly persons (ages 65 and over) totaled approximately 500 at each of the three rounds. Mortality data shows that 461 of the sampled persons were known to have died by the time of Round III.

The documentation that accompanies the data file describes the subsequent topics and specific investigations for which data were collected from 1970 onward. Further data will be made available through NACDA as funds are available to prepare public use files. Until then, the principal investigators at the University of Michigan's School of Public Health may be contacted for permission to analyze the 1970-1989 data (c/o Dr. Ruth Little, Associate Professor of Epidemiology, 313/747-2041).

3. Combined Health Information Database (CHID)

The Health Education Database, produced by the Center for Health Promotion and Education (CHPE) at the Centers for Disease Control, contains over 16,000 records of information for use by health educators and other health professionals. The database contains abstracts from journal articles, monographs, reports, conference proceedings, and program descriptions about a variety of topics including:

- Chronic Disease Prevention and Education
- Community Health Education
- Family Life and Sex Education
- Health Education Methodology
- Occupational Health Education
- Patient Health Education
- Risk Reduction Interventions
- School Health Education
- Self Care

The Health Education Subfile on CHID is available through BRS Information Technologies, Inc., in Latham, New York (800-345-4BRS).

CHID can be accessed through local or state libraries that subscribe to BRS. For more information regarding CHID or the Health Education Subfile contact:

Education Resources Branch
Center for Health Promotion and Education
Centers for Disease Control
1600 Clifton Road
Atlanta, Georgia 30333
(404) 639-3492

4. International Database on Aging, U.S. National Institute on Aging/U.S. Bureau of the Census

In response to the need for reliable and internationally comparable statistics on aging, the U.S. National Institute on Aging (NIA) and the Center for International Research (CIR), U.S. Bureau of the Census, have developed a computerized database which provides detailed demographic and socioeconomic information about the aged in the United States and 41 other countries. The intent of this effort is twofold: to promote a better understanding of the aging process in disparate societies; and concurrently, to afford researchers and policymakers in the United States a better opportunity to gain insights and formulate responses to demands generated by an aging American population.

While published data often aggregate the elderly into a broad open-ended age group (65 years old and over), the NIA/CIR database is organized into 5-year age cohorts for the highest obtainable grouping. Information about these cohorts over time will allow researchers to go beyond mere cross-sectional comparisons to analyses of the same age cohorts in different countries.

The detailed statistics include not only numbers of people in each cohort, but also their marital and educational status, labor force participation and occupations, mortality rates and causes of mortality, and other related characteristics. For certain industrialized countries, income comparisons of the non-aged and aged, and among the aged, are being included in the database as information from ongoing studies becomes available. This represents an important step toward an integration of the economics and demographics of international aging.

Database contents have been reviewed for internal consistency and international comparability. Source documentation accompanies all information, and additional notation of conceptual definitions and/or data irregularities is provided where necessary. Geographical coverage includes not only the most industrialized countries in the world, but also 3 Eastern European countries that have declining life expectancy, and 22 developing nations with very different age profiles than that of the United States.

With support from the U.S. Agency for International Development, statistics from 35 additional developing countries are being incorporated into the database. A broadening of subject-matter coverage is also being considered in order to better assess patterns of living arrangements, health, and consumer expenditure among elderly populations. To enhance dissemination and usage of information from the International Database on Aging, CIR is currently preparing microcomputer diskettes that will allow easy access to database contents.

For more information on the International Database on Aging, contact:

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The Regional Offices of the Bureau of Census, through the Data User Service Division, respond to user requests for information about Bureau data products and services.

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The State Data Center Program is a State-Census Bureau cooperative program, established in 1978 to make census information and data available to the public through a network of state agencies, universities, libraries, and regional and local governments. The February 1988 list of State Data Center Program State Coordinating Organizations follows. (*Denotes key contact person.)

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SCIENCE

Human Aging: Usual and Successful

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Human Aging: Usual and Successful

JOHN W. ROWE AND ROBERT L. KAHN

Research in aging has emphasized average age-related losses and neglected the substantial heterogeneity of older persons. The effects of the aging process itself have been exaggerated, and the modifying effects of diet, exercise, personal habits, and psychosocial factors underestimated. Within the category of normal aging, a distinction can be made between usual aging, in which extrinsic factors heighten the effects of aging alone, and successful aging, in which extrinsic factors play a neutral or positive role. Research on the risks associated with usual aging and strategies to modify them should help elucidate how a transition from usual to successful aging can be facilitated.

RESEARCH ON AGING HAS EMPHASIZED LOSSES. IN THE absence of identifiable pathology, gerontologists and geriatricians have tended to interpret age-associated cognitive and physiologic deficits as age-determined. We believe that the role of aging per se in these losses has often been overstated and that a major component of many age-associated declines can be explained in terms of life style, habits, diet, and an array of psychosocial factors extrinsic to the aging process.

Research on aging has also emphasized differences between age groups. The substantial heterogeneity within age groups has been either ignored or attributed to differences in genetic endowment. That perspective neglects the important impact of extrinsic factors and the interaction between psychosocial and physiologic variables. In this article we offer our perspective on the place of extrinsic factors in the aging process, the long-term consequences of extrinsically initiated changes, and the implications of our views for gerontological research.

The Concept of Normality in Studies of Aging

In recent decades, increasing interest in the medical problems of older people and in the process of aging itself has stimulated substantial growth in physiologic, psychologic, and sociologic research on aging in human populations. Investigators involved in such studies have from the beginning recognized the importance of separating pathologic changes from those that could be attributed to aging per se. Thus, for physiologic studies careful guidelines have been developed to exclude individuals whose age-determined responses and behaviors might be contaminated by specific disease processes (*1, 2*). Results on the population remaining after such exclusions have then been interpreted as representing "normal" aging, especially when the data came from longitudinal studies rather than cross-sectional comparisons of different age groups were thus less confounded with cohort effects.

The concept of normality, explicit or implied, has served wi such research. During the past 30 years, numerous cross-secti and longitudinal studies on populations carefully screened disease have demonstrated major effects of age on such clini relevant variables as hearing, vision, renal function, glucose t ance, systolic blood pressure, bone density, pulmonary funct immune function, and sympathetic nervous system activity. M recently, related research has revealed characteristic changes respect to cognitive and behavioral functions.~Such nonpathol changes are important not only as reflections of the aging pro but also, in many cases, as precursors of pathology. They consti the physiologic substrate for the influence of age on the subseq presentation of disease, and perhaps on probable response treatment and likelihood of complications.

Nevertheless, the division of populations into diseased ve normal and the division of research findings into disease-related age-determined have serious limitations. Chief among these is neglect of heterogeneity among older people in the nondise group with respect to many physiologic and cognitive characte tics, a heterogeneity that is important both within cultures between cultures. A second limitation of the emphasis on norma is the implication of harmlessness or lack of risk. And a th limitation is the related implication that, risky or not, what is nor is somehow natural and therefore is or should be beyond purpos modification. In short, the emphasis on "normal" aging focu attention on learning what most older people do and do not what physiologic and psychologic states are typical. It tends to cre a gerontology of the usual.

Successful and Usual Aging

Each of the foregoing limitations urges the development of additional conceptual distinction within the normal category, wh can be approximated by the contrast between usual on the one han and successful on the other. For example, while many import physiologic variables show substantial losses with advancing age the average, an important characteristic of such age-grouped data the substantial variability within groups (*1–3*). In many data s that show substantial average decline with age, one can find ol persons with minimal physiologic loss, or none at all, wh

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compared to the average of their younger counterparts. These people might be viewed as having aged successfully with regard to the particular variable under study, and people who demonstrate little or no loss in a constellation of physiologic functions would be regarded as more broadly successful in physiologic terms. They, in combination with people who show the typical nonpathologic age-linked losses that we propose to designate usual, constitute the heterogeneous category of the normal (that is, nondiseased) in any age group.

A distinction between usual and successful is urged similarly by recent discoveries with respect to risk factors for specific diseases. We are learning, for example, that age-linked increases in blood pressure, body weight, and serum cholesterol levels, while they may be usual in the populations that have been most frequently studied, are risk factors for cardiovascular disease. Moreover, such changes, which had been interpreted as age-intrinsic, are turning out to be usual in prosperous industrial countries but not in pastoral and traditional agricultural societies (*4*).

It is at least a reasonable hypothesis, given such cross-cultural differences, that attributions of change to age per se may often be exaggerated and that factors of diet, exercise, nutrition, and the like may have been underestimated or ignored as potential moderators of the aging process. If so, the prospects for avoidance or even reversal of functional loss with age are vastly improved, and thus the risk of adverse health outcomes reduced.

The concept of successful aging does not, of course, replace the necessary concern with explicit diseases and their causes nor the need to know what the dominant patterns of aging are in our society, by whatever name (usual, average, or even normal) we designate them. The concept of successful aging, however, adds to these a focus on heterogeneity within age groups and on the elucidation of factors that explain success. We turn now to the research evidence that bears on the distinction between usual and successful aging, first for physiologic and then for psychosocial characteristics.

Aging and Carbohydrate Metabolism

It has been known for over 60 years that advancing age is associated with progressive impairments in the capacity to metabolize a glucose load (*5*). After exclusion of individuals with fasting hyperglycemia, which is indicative of diabetes mellitus, as well as those treated with medications known to alter glucose tolerance and those noted to have become diabetic during the course of longitudinal studies, results of oral or intravenous glucose tolerance tests show a remarkable increase in the mean 2-hour blood sugar level with advancing age. There is a substantial increase in the variability of results in successive age groups, however, with many older individuals metabolizing glucose as well as their average younger counterparts. Resistance to the effect of insulin on peripheral tissues appears to play a major role in the genesis of glucose intolerance among nondiabetic older people. As with other insulin-resistant states, the insulin resistance of aging is associated with progressive increases in postprandial insulin levels (*6*).

The carbohydrate intolerance of aging may carry substantial risk, even in the absence of disease. A recent report from the Honolulu Heart Program evaluated the 12-year risk of stroke in 690 diabetics and 6908 nondiabetics free of stroke at study entry (*7*). Diabetes was clearly associated with increased risk of stroke, as expected. Additionally, among nondiabetics the risk of stroke was markedly age-related and was significantly higher for those at the 80th percentile of serum glucose than for those at the 20th percentile.

Findings on the carbohydrate intolerance of aging as a risk factor in coronary heart disease are mixed. While some epidemiological studies suggested an increase in coronary heart disease risk with hyperglycemia in nondiabetics, an international collaborative group conducting a thorough review of the 15 available studies on this issue did not find consistent evidence for that effect (*8*). On the other hand, studies focusing on post-prandial hyperinsulinemia, a cardinal feature of the insulin resistance of aging, have shown increases in insulin levels to be a significant independent contributor to the incidence of coronary heart disease death (*9–11*). In addition to these direct effects, increases in insulin level are associated with increases in triglyceride levels and decreases in high density lipoprotein–cholesterol levels, both of which are known risk factors for heart disease (*12–14*).

Attempts have been made to determine which components of the age-associated alterations in carbohydrate intolerance are related to aging per se and which components might be related to factors such as diet, exercise, medications, and body composition. For example, in Italian factory workers aged 22 to 73 years, Zavaroni *et al.* (*15*) evaluated the relative contributions of obesity, physical activity, family history of diabetes, and the use of diabetogenic drugs to age-related increases in glucose and insulin levels after an oral glucose tolerance test. The initial strong statistical correlation between age and both post-prandial glucose and insulin levels became much weaker when the effects of exercise, diet, and drugs were taken into account, so that the correlation between glucose and age was limited to marginal statistical significance and there was no longer an effect of age on insulin levels. Hollenbeck *et al.* (*16*) showed a direct and statistically significant relation between physical fitness as reflected in maximal oxygen consumption and insulin-stimulated glucose metabolism in nonobese healthy older men. Seals and co-workers found the performance of older physically trained men on oral glucose tolerance tests was identical to that of young athletes and significantly better than that of untrained older men (*17*).

As pointed out by Reaven and Reaven (*18*), these findings clearly suggest that much of the observed carbohydrate intolerance of older people may be caused by factors other than biological aging per se, and that dietary or exercise modifications may substantially blunt the emergence with age of carbohydrate intolerance and insulin resistance. The latter view is supported by earlier studies demonstrating improvements in glucose tolerance in young adults and diabetics after exercise regimens (*17, 19, 20*), as well as recent studies suggesting that exercise programs also improve the glucose intolerance and insulin resistance of older people (*21, 22*).

Aging and Osteoporosis

Aging is associated with a progressive decline in bone density in both males and females after maturity. Losses in bone density so severe as to result in fractures after minimal trauma define the "disease" osteoporosis, which accounts for more than 1 million fractures in the United States each year. Osteoporosis is of staggering importance in the elderly—by age 65 one-third of women will have vertebral fractures and by age 81 one-third of women and one-sixth of men will have suffered a hip fracture, often a catastrophic, if not terminal, event (*23*).

Although it has long been recognized that osteoporosis is a process that has multiple possible causes and that varies a great deal among older people, aging itself has generally been considered a major factor in the loss of skeletal integrity. In their recent review of current information regarding involutional osteoporosis, Riggs and Melton (*23*) indicate that three separate components contribute to age-related bone loss. The first component—the effect of intrinsic aging—represents a decline in bone mass with advancing age in both men and women beginning in the 20s and 30s, and includes several

identifiable physiologic processes. In women this bone loss occurs despite regular periods and intact ovarian function. The second component—a more rapid decline in bone mass in women after middle age—is accountable to the prominent effects of menopause. The third component, which is of major clinical importance, represents the net effect of "extrinsic" factors present to a variable degree in the population that contribute to the remarkable variance in bone density among the elderly. These preventable risk factors include cigarette smoking, heavy alcohol intake, and inadequate calcium intake (*24–27*).

In addition to identifying several potentially modifiable factors contributing to the emergence of osteoporosis, a number of studies suggest that bone loss can be blunted in advanced age by institution of moderate exercise programs (*28–30*). Thus, emergence of osteoporosis, a common, crippling, and expensive disorder previously considered to represent the "normal" aging process, is variable and influenced by aging and nonaging factors. The marked reductions in bone density associated with "usual" aging may be in large part preventable or modifiable.

Aging and Cognitive Function

Apparent age-related changes that further study suggests are not intrinsic to the aging process and may be modifiable have been found in cognitive domains as well (*31*). Schaie and his colleagues conducted an instructive series of cross-sequential studies on successive cohorts of individuals across the adult age range, thus permitting a comparison of cross-sectional and longitudinal data from the same study populations (*32*). Cross-sectional comparisons between age groups for subjects tested in 1963 showed significantly lower scores in many cognitive capacities for the older groups, a finding commonly interpreted as reflecting performance declines with advancing age. However, when the same subjects were retested 7 years later, they did not show the age-related declines that would have been predicted on the basis of the earlier cross-sectional comparisons. The longitudinal data suggested that declines in both verbal test scores (crystallized intelligence) and scores on reasoning and spatial tests (fluid intelligence) occurred at substantially later ages than the cross-sectional comparisons had implied. Such differences between cross-sectional and longitudinal comparisons exemplify a cohort effect, in which successive age cohorts score differently at the same chronological age. Differences of this kind cannot be explained in terms of factors intrinsic to the aging process, which are presumably constant from one age cohort to another. The explanation of cohort differences must be sought elsewhere—for example, in nutritional or educational differences between cohorts.

A clear demonstration of the influence of education on test performance commonly considered age-determined can be seen in Green's analysis of scores on the Wechsler Adult Intelligence Scale (*33*). Comparisons across age groups in a stratified random sample showed large age-related differences, of the kind usually interpreted as decrements caused by age. However, when similar comparisons were made between age groups limited to people of equal education, the "age effect" became insignificant.

These studies of Schaie and Green, taken together with similar findings by other investigators (*31*), indicate that much of the cognitive loss in late middle life that has been considered intrinsic to aging is caused in part by extrinsic factors and may therefore be preventable. That such losses may even be reversible once they occur is suggested by the recent studies of Schaie and Willis (*34*). These investigators divided participants in a longitudinal study into those with a clear pattern of decline in fluid intelligence (inductive reasoning and spatial orientation) with aging and those whose performance was stable. After five training sessions there was substantial and retained improvement among the individuals who were previously declining in cognitive function.

Psychosocial Factors in Health and Disease Among Older People

In the rest of this article we will focus on psychosocial factors, which constitute one category of the extrinsic variables that influence patterns of aging, both usual and successful. Most health-relevant psychosocial research on older people, however, has been concentrated on morbidity and mortality as the outcomes of interest with few if any distinctions made within the residual category of the nondiseased elderly. Despite this neglect of nonpathologic aspects of aging, this research provides a valuable backdrop for the research we call for, since it identifies extrinsic psychosocial properties that influence the well-being of older men and women. Psychosocial factors should be studied in their full range, not only in their negative aspects. Doing so is especially important to reveal their contributions to successful aging. Two dimensions that have been sufficiently studied to serve as examples of our views are autonomy (or control) and social support (or connectedness).

Autonomy and Control

A great deal of research has been done in the broad area of control or autonomy—that is, the extent to which individuals are able to make decisions regarding choice of activity, method and manner of engagement, timing, pace, and the like. Despite a discouraging scatter of measures, the research results show a remarkable convergence: lack of control has adverse effects—on emotional states, performance, subjective well-being, and on physiologic indicators.

The potential relevance of research on control, animal and human, for understanding the circumstances and well-being of older people was observed promptly by gerontological research workers. Older people commonly encounter reductions in autonomy and control for a variety of reasons—physical impairments, reduced economic capability as wages are replaced by retirement stipends, residential moves from separate households to combined or institutional living arrangements, and the like (*35*). In recent years a number of studies have been done on the effects, or at least the concomitants, of autonomy limitations of various kinds on older people. This considerable literature has been the subject of two recent summaries (*36, 37*), and we therefore limit ourselves to major examples.

The bulk of control-oriented research with older human populations is nonexperimental and more often cross-sectional than longitudinal, both of which facts urge caution in causal interpretation. Nevertheless, the substantive findings are encouraging in their consistency. For example, Wolk (*38*) compared the residents of two retirement settings, a low constraint retirement village and a relatively high constraint retirement home. Residents in the former setting were observed to be more in control of their own activities, they so perceived themselves, and they also scored higher in life satisfaction and adjustment.

Shupe (*36*) cites preliminary data from a longitudinal study of psychosocial events and health status (*39*) that provides a stronger basis for causal inference. Undesirable events over which the individual had full control did not correlate with the index of strain, whereas undesirable events over which the individual had no control were strongly correlated with strain. When the individual had partial control, the correlation with strain depended on a third variable, the predictability of the aversive stimuli, with low predictability height-

ening the relation between lack of control and strain, and high predictability suppressing the relation.

Perhaps the most persuasive data on the effects of control among older people come from the small number of field experiments in which the control of individuals over their own daily lives was systematically increased. These experiments have been done almost entirely with populations already in residential retirement facilities or nursing homes, or among people facing imminent relocation to such facilities.

Krantz and Schulz (*40*), following an earlier nonexperimental study (*41*) in which the negative health changes after admission to a nursing home were found to be moderated by the amount of individual control over the move, conducted an experiment in which prospective patients were given a choice about the timing of the move, which of several institutions they would move to, and some of the living arrangements after the move. Under these experimental conditions, there was little decline from the level of health and psychological well-being as assessed before the move.

Langer and Rodin (*42*) conducted an experiment in a nursing home in which residents on one floor were given a treatment that enhanced control consisting of a lecture from the nursing-home administrator about decisions that they could and should make for themselves. A comparison group, on another floor, heard a lecture of similar length that emphasized what the staff would do in taking care of such matters. During the first 3 weeks after the experimental treatment, people in the experimental group were happier and more active according to self-report and spent more time in social activities as reported by nurses, who also judged them to be generally more improved than those in the control group. These changes persisted and the differences between groups increased over an 18-month period.

A near replication of the Rodin and Langer experiment was conducted by Mercer and Kane (*43*). The experimental treatment was extended to include individual visits by the nursing-home administrator in which patients were invited to join a council of residents. The comparison group in this experiment came from a second nursing home. Again the experimental group showed increased activity, improvement in staff-rated patterns of eating and sleeping, and decreases in self-reported hopelessness.

A third field experiment in a nursing-home setting, similar in some respects, was conducted by Schulz and his colleagues (*44*, *45*). Again the experimental treatment involved increased control, in this case over the timing and duration of student visits, and again enhanced control produced gains in positive affect, activity level, and general health status. The differences between the experimental group (enhanced control) and two comparison groups, one of which received no student visits and one of which received visits on a random and unpredictable basis, were unambiguous. However, a fourth group, which had no control over the timing of the visits but was given advance information about their scheduling, showed improvements comparable to those of the enhanced control group. These findings suggest that the positive effects of enhanced control may be due at least in part to its making life more predictable; control confers predictability.

A more recent nursing-home experiment by Avorn and Langer (*46*) extends this line of work by comparing two experimental treatments, one of which is control-enhancing and the other control-reducing. Experimental subjects, a total of 72 with an average age of 78 years, were randomly assigned to three groups and given the task of completing individually a simple jigsaw puzzle. All subjects then had four 20-minute practice sessions. Subjects in the first group were given verbal encouragement during practice; subjects in the second group were given direct assistance, and subjects in the third group received no assistance or encouragement beyond the initial instruction. All subjects were rated for proficiency and speed both before and after the experimental treatments. The results showed significant improvement for subjects who had been encouraged, significant deterioration for subjects who had been directly assisted, and no change for subjects who had had no experimental treatment. The authors argue that the direct-assistance treatment is typical of approaches to older people that do for them what they could do or learn to do for themselves. The effect is infantilizing; the lesson is learned helplessness. We concur, and add that the essential difference between the two experimental studies is one of control: encouragement in this situation is control enhancing; assistance is control reducing.

On balance, these studies, all published within the past 10 years, represent an important line of field-experimental research. Their results reinforce earlier nonexperimental findings that suggested the importance of control for the well-being of older people. In our opinion, the extent to which autonomy and control are encouraged or denied may be a major determinant of whether aging is usual or successful on a number of physiologic and behavioral dimensions.

Aging and Social Support

Several lines of research on psychosocial factors and health converge around the concept of social support. Moreover, in spite of the definitional imprecision of the concept and the variety of measures that claim to assess it, empirical research has produced consistent if not often large associations between social support and various indicators of health and well-being (*47*). Some of this research has involved attempts to measure support directly, usually by report of the recipient but occasionally by report of the provider as well (*48*). Some has inferred support from less subjective data—marital status and household composition, for example, or proximity of family members. Most such research has neglected the variable of age and none shows systematically differentiated findings across the entire life course. A significant number of studies, however, are specific to older people or control appropriately for age, and it is those on which we rely for this review. We will consider first the evidence that social networks and support as persisting conditions affect mortality and morbidity among older people and next that support-disrupting life events have specific negative effects on both mortality and morbidity. Finally, we will consider some of the ramifications of this work for successful aging, including the relation to autonomy and control among older people.

Three epidemiological studies show that membership in a network of family and friends is associated with lesser mortality risk. In the Alameda County Study, Berkman (*49*) developed a social network index that included marital status, contacts with extended family and close friends, church group membership, and other group affiliations. Analyses based on this index showed age-adjusted relative risks of 2.3 for men and 2.8 for women over the 9-year period of the study, where relative risk refers to the likelihood of death among people at the bottom of the social network index in comparison with those at the top. The Tecumseh (Michigan) study (*50*), in similar multiple logistic analyses of social connectedness, found significant relationships to mortality over a 10-year period for both men and women, with age controlled. And the Durham County study (*51*), which included perceptions of social support as well as reported connectedness, and in contrast to the Alameda and Tecumseh studies was limited to men and women aged 65 years or more, showed relative mortality risks of 3.40 for impaired social support (self-perceived), 2.04 for impaired roles and attachments, and 1.88 for low frequency of social interaction.

The positive effects of social support have also been demonstrated

by means of intervention studies, most of them involving supportive behaviors by professional or quasi-professional persons. Criteria include rate and completeness of recovery from injuries, heart attacks, cancer, and other physical illnesses (*52–54*). At least four intervention studies involve the introduction of social support by one or more informal sources (relatives, friends) to increase adherence to hypertensive regimens. Three of them showed significant increases in adherence, with some evidence that the involvement of people significantly related to the patient made an independent contribution to the outcome (*55–57*).

Bereavement and Relocation

If the presence of social support and its experimental introduction in times of stress are conducive to well-being and recovery from illness, it is plausible that support-disrupting events should have negative effects. Two such life events are especially common among older people—bereavement and relocation, which involve, respectively, the loss of one's spouse and the loss (or at least partial loss) of friends and neighbors. Both these events have been studied for their effects on mortality and morbidity, usually with some limitations in design and measurement. For example, losses of social support are typically inferred rather than measured directly.

The gross fact of higher age-specific mortality rates among widowed than among married people has been reported in studies for many years. In 1969, Parkes, Benjamin, and Fitzgerald (*58*) provided more precise prospective data from a 9-year follow-up of 4486 widowers aged 55 or more. Excess mortality in this group peaked during the first 6 months of bereavement (40% excess) and declined thereafter, so that in the fifth year the mortality rate for widowers was not significantly different from that for the married men who served as controls. Causes of death varied, but in almost half the cases death certificates showed heart disease as the cause.

The finding of excess mortality has been confirmed in three other longitudinal studies (*59–61*), although the most recent of them (*61*) does not show the peaking of mortality during the first 6 months, the concentrated reporting of heart disease as the cause of death, or the gradual return to nonexcessive mortality rates within 5 years. These studies, which included women as well as men, do show a significant gender effect. For reasons not fully understood, excess mortality after the loss of a spouse is more characteristic of men than women. Tentative explanations emphasize the different roles of men and women in nutrition and meal preparation and the greater reliance of men on emotional support from their wives (*62*).

The effects of bereavement have been studied in terms of morbidity as well as mortality, with varying results. Higher rates of reported symptoms have commonly been found, but without change in major diagnosed disease (*63*), physician visits, or rates of hospitalization (*64*). And one study (*65*) of elderly men and women (average age 74) found no differences between the married and widowed on any measure of health. Post facto explanation emphasized the expectation of people in the upper age range to encounter such losses and their consequent readiness to cope with them.

Next to bereavement, residential relocation is the network-disrupting event that has been most studied in elderly populations. In a review of this research, Minkler (*66*) distinguishes between moves within the community of private households and moves into or between nursing homes and other institutions. Moves of the latter kind have more consistently resulted in excess mortality, especially during the early months after the move (*67*), although not all studies show mortality effects. Moves of the former kind have not shown excess mortality, but they have showed increases in number of physician visits and nursing home admissions, with concomitant reductions in self-rated health (*68*). Kasl and Berkman (*69*) suggest that these differences in study results, especially those involving institutional residence, may depend on the manner of preparation and handling, as well as the relative quality of the two environments. This interpretation is consistent with findings on the effects of predictability and control described above.

Well-designed field experiments to test the effects of social support on morbidity and mortality changes after major life transitions are much needed and exceedingly rare. In one such study (*70*), 200 recently bereaved widows less than 60 years of age were assigned randomly to an experimental group that received support and encouragement during a 3-month period, or to a control group that received no treatment. Morbidity was significantly reduced in the experimental group during the 13-month post-intervention period. Apparently, social support can mitigate the ill effects of even this most painful relationship-disrupting event of later life. Its ability to facilitate successful aging in other ways has yet to be explored.

Support and Control

Social support and control have been studied separately as psychosocial factors affecting health, but they are almost certainly related. The interpersonal behaviors that are called supportive include, among others, the providing of material assistance, information, sick care, and expressions of respect and love. Support so defined, in our view, can either increase or decrease the autonomy and control of the recipient. Teaching, encouraging, enabling are autonomy-increasing modes of support. Constraining, "doing for," warning, and the like beyond the requirements of the situation may convey caring but they teach helplessness.

Some research findings are consistent with this line of speculation, which would predict greater positive effects for supportive behavior when it is also autonomy-enhancing. We referred earlier to the nursing-home experiment in which performance at a simple cognitive task was enhanced by encouragement but reduced by direct assistance (*46*). Pearlin *et al.* found that emotional support reduced depressive symptoms by the intervening process of increasing self-esteem and mastery (*71*). Bulman and Wortman found that paraplegic victims of severe accidents responded best to support that emphasized their control over their own lives, even in choosing the activity that led to the accident (*72*).

To realize the potential contributions of support to successful aging, we must establish a causal sequence that includes the individual's need for support (objective and perceived), the kind of support required (material, informational, emotional), and the effect of that support on other psychosocial predictors of success, of which autonomy and control are an important example.

Psychosocial and Physiologic Pathways

A further step in understanding the effect of psychosocial factors on health must be the integration of psychosocial causes with a broad array of biologic outcomes, including the full functional range instead of the conventional restriction to morbidity and mortality. Moreover, we must learn the pathways by which such causes and effects are linked. Berkman (*73*), in a review chapter on social networks, proposes four main possibilities for investigation:

1) Providing help, care, and material assistance may be directly health protective. For example, a person who is ill may receive care from family members and friends before and beyond the requirements of professional medical service.

2) Psychosocial resources may enable people to get better and

earlier medical care. Antonucci *et al.* (*74*), in a study of early detection of cancer symptoms, found that the promptness with which individuals sought medical diagnosis was affected by the actions of their personal network members. Most consistent of these network factors was the direct intervention of friends or family members in making medical appointments, providing transportation, and the like.

3) Psychosocial influences may increase health-promoting and risk-reducing behaviors. For example, peer pressure may induce better nutritional practice, elimination of smoking, moderation in the use of alcohol, or adherence to medical regimens (*55*).

4) Psychosocial factors may also have direct physiologic effects. Research on cardiovascular disease, while by no means consistent, implies such a direct pathway, as do some animal experiments on neural, hormonal, and immunologic processes.

Epidemiological research on cardiovascular diseases suggests a direct link between psychosocial causes and physiologic effects mainly by a process of elimination: when the usual risk factors are statistically controlled, a direct physiologic pathway between supportive interpersonal relations and a specific disease is proposed as a plausible residual explanation. Interpretations of this kind have been offered to explain relations between sustained interpersonal bonds and coronary heart disease in widely diverse groups—Japanese Americans in California (*75*) and Hawaii (*76*), women clerical workers in the Framingham study (*77*), and Israeli civil servants (*78*). Such findings are intriguing but not conclusive, especially because they are inconsistent in several respects—in their generality across demographic subgroups, in their application of incidence as well as prevalence, and in their explanation of myocardial infarct as well as angina pectoris.

The direct effect of psychosocial factors on physiologic processes has been investigated more rigorously in animal research, with findings that link behavioral and environmental interventions to neural, hormonal, and immunologic processes and then to disease outcomes—alloxan diabetes in rats (*79*) and Marek's disease in chickens (*80*), for example. Studies of this kind with human populations are fewer, but increasing. Jemmott and Locke (*81*) describe 40 studies that link psychosocial factors, immunologic processes, and susceptibility to infectious diseases.

Few of these studies have yielded age-specific results or have been conducted with elderly populations. Two, however, have studied the effects of bereavement on lymphocyte function. Bartrop *et al.* (*82*) found lower lymphocyte response to mitogenic stimulation [with phytohemagglutinin (PHA) and concanavalin A (Con A)] among bereaved spouses as compared with controls matched by age, sex, and race, but no differences in T- and B-cell counts or in plasma cortisol. Schleifer *et al.* (*83*) reported a significant reduction in T-lymphocyte response to stimulation by one mitogen (PHA), a marginal reduction in response to another (Con A), and a significant reduction in B-lymphocyte response to pokeweed mitogen, which suggests that bereavement may affect humoral as well as cell-mediated immunity. Other studies, both animal and human, have demonstrated the effect of such stressors as novelty, unpredictability, and suspenseful anticipation on plasma cortisol secretion rates, especially among subjects with inadequate psychological defenses.

To the extent that older people are placed in situations where they lack control over their lives, and to the extent that the forms of support available to them are not control-enhancing, we would predict physiologic changes of the kinds reported in this research, with consequent increases in morbidity and passivity. The positive implications of such predictions are that increased predictability, control, and support that enhances both will be reflected in increased proactive behavior and resistance to disease. Research along these lines should help explain the great variability within the population of nondiseased elderly and thus increase our understanding of successful aging.

Directions for the Future

The central theme of this article is the distinction between usual and successful aging and the consequent need for interdisciplinary studies of the factors that determine the trajectory of function with advancing age. Most gerontological research, however, continues to concentrate on average tendencies within different age groups and to neglect the substantial heterogeneity within such groups. That heterogeneity, moreover, appears to increase with increasing age.

The emphasis on usual age-linked tendencies encourages an overreadiness to treat age as if it were itself a sufficient explanatory variable; the emphasis on heterogeneity within age groups compels a search for other explanations as well. Epidemiological research shows that age-extrinsic factors such as eating and exercise habits are prominent among such potential explanations. These habits are shaped and sustained by psychosocial influences—properties of the larger culture and behaviors of family members, friends, and professionals.

Our first recommendation, therefore, is that gerontological research should incorporate the distinction between usual and successful aging. That in turn means including the full functional range of the outcome variables under study. It also means undertaking the task of explaining the heterogeneity of older people with respect to those functions.

Our second recommendation is that gerontological research should concentrate on understanding transitions in later life, especially transitions that have functional significance. Some of these represent loss of function—from successful to usual, usual to diseased, diseased to impaired. But no less important and much less understood are the potentialities for transition in a positive function-expanding direction. Experimental results on the effects of exercise in increasing bone density and the effects of specialized training in improving cognitive functions demonstrate the possibility of positive reversals in older populations. To the extent that maintenance and recovery of function can be explained in terms of extrinsic factors, it becomes reasonable to think of increasing the proportion of the successful elderly.

Autonomy and social support were discussed as psychosocial factors relevant to understanding successful aging. Research on autonomy is reasonably interpreted as indicating that the role of the helpless elder is to a significant degree shaped by the immediate environment of the individual—its opportunities and constraints, and the specific behaviors of influential others who define them. Experiments with people showing extreme functional losses—residents and prospective residents of nursing homes—have shown that some of these losses are reversed by modest increases in autonomy and the encouragement to use them.

Social support, like autonomy, has positive effects on function and self-reported well-being. Support—defined to include the enhancement of material, informational, and emotional resources—seems to exert these effects both directly and by buffering the negative effects of stressors. The fact that behavior intended to be supportive has been shown in at least one situation to have negative effects on function suggests the importance of distinguishing between autonomy-enhancing and autonomy-reducing modes of support. This distinction is familiar in the field of child development but not in gerontological research, and it is only one example of a causal complexity that is almost certainly widespread.

Our third recommendation, therefore, is that extrinsic factors that

influence successful aging should be studied in interdependent combinations as well as singly.

Finally, research that links the physiologic and psychosocial levels is suggested by the fact that both are implicated in the definition and explanation of successful aging. Recent experiments showing the effect of psychosocial interventions on physiologic indicators of stress and resistance to disease illustrate both the feasibility and the importance of such interdisciplinary efforts. Scientific work on aging requires both levels of explanation for completeness, and gerontological practice requires both for the development of effective interventions. Our fourth recommendation, therefore, is for aging research that links the psychosocial and physiologic levels.

These recommendations have in common a thrust toward health promotion and disease prevention in the elderly. A revolutionary increase in life span has already occurred. A corresponding increase in health span, the maintenance of full function as nearly as possible to the end of life, should be the next gerontological goal. The focus on successful aging urges that goal for researchers, practitioners, and for older men and women themselves.

REFERENCES AND NOTES

1. J. W. Rowe, *N. Engl. J. Med.* **312**, 827 (1985).
2. N. W. Shock *et al.*, *Normal Human Aging: The Baltimore Longitudinal Study of Aging* (U.S. Department of Health and Human Services, Washington, DC, 1984).
3. J. W. Rowe, *N. Engl. J. Med.* **309**, 1246 (1983).
4. I. Waldron *et al.*, *Soc. Sci. Med.* **16**, 416 (1982).
5. K. L. Minaker, G. S. Meneilly, J. W. Rowe, in *Handbook of the Biology of Aging*, C. E. Finch and E. L. Schneider, Eds. (Van Nostrand Reinhold, New York, 1985), pp. 433–456.
6. M. B. Davidson, *Metabolism* **28**, 688 (1979).
7. R. D. Abbott *et al.*, *J. Am. Med. Assoc.* **257**, 949 (1987).
8. International Collaborative Group on Asymptomatic Hyperglycemia and Coronary Heart Disease, *J. Chronic Dis.* **32**, 11/12 (1979).
9. P. Ducimetiere *et al.*, *Diabetologia* **19**, 205 (1980).
10. K. Pyorala, *Diabetes Care* **2**, 131 (1979).
11. T. A. Welborn and K. Kearne, *ibid.*, p. 154.
12. M. S. Greenfield *et al.*, *Metabolism* **29**, 1095 (1980).
13. L. A. Carlson and L. E. Bottinger, *Lancet* **1972-I**, 865 (1972).
14. I. Zavaroni *et al.*, *Atherosclerosis* **55**, 259 (1985).
15. I. Zavaroni *et al.*, *J. Am. Geriatr. Soc.* **34**, 271 (1986).
16. C. B. Hollenbeck, W. Haskell, M. Rosenthal, G. M. Reaven, *ibid.* **33**, 273 (1985).
17. D. L. Seals *et al.*, *J. Appl. Physiol.* **56**, 1521 (1984).
18. G. M. Reaven and E. P. Reaven, *J. Am. Geriatr. Soc.* **33**, 286 (1985).
19. D. E. James, E. W. Kraegen, D. J. Chisholm, *J. Appl. Physiol.* **56**, 1217 (1984).
20. J. B. Leblanc, A. Nadeau, M. Boulay, S. Rosseau-Migneron, *J. Appl. Physiol.* **46**, 235 (1979).
21. D. L. Seals *et al.*, *J. Am. Med. Assoc.* **252**, 645 (1984).
22. R. P. Tonino, W. H. Nedde, D. C. Robbins, E. S. Horton, *Clin. Res.* **34**, 557 (1986).
23. B. L. Ruggs and L. J. Melton, *N. Engl. J. Med.* **314**, 1676 (1986).
24. E. Seeman, L. J. Melton, W. M. O'Fallon, B. L. Riggs, *Am. J. Med.* **75**, 977 (1983).
25. D. D. Bikle *et al.*, *Ann. Intern. Med.* **103**, 42 (1982).
26. M. A. Adena and H. G. Gallagher, *Ann. Hum. Biol.* **9**, 121 (1982).
27. H. Jick, J. Port, A. S. Morrison, *Lancet* **1983-I**, 1354 (1983).
28. J. F. Alosa, S. H. Cohn, J. A. Osturu, R. Cane, K. Ellis, *Ann. Intern. Med.* **89**, 356 (1978).
29. B. Kroiner, B. Toft, P. S. Nielson, E. Tondevold, *Clin. Sci.* **64**, 57 (1983).
30. E. L. Smith, W. Reddan, P. E. Smith, *Med. Sci. Sports Exercise* **13**, 60 (1981).
31. G. Labouvie-Vief, in *Handbook of the Psychology of Aging*, J. E. Birren and K. W. Schaie, Eds. (Van Nostrand Reinhold, New York, 1985), pp. 500–530.
32. K. W. Schaie and G. Labouvie-Vief, *Dev. Psychol.* **10**, 305 (1974).
33. R. F. Green, *ibid.* **1**, 618 (1969).
34. K. W. Schaie and S. Willis, *ibid.* **22**, 223 (1986).
35. T. H. Holmes and R. H. Rahe, *J. Psychosom. Res.* **11**, 213 (1967).
36. D. R. Shupe, in *Cognition, Stress, and Aging*, J. E. Birren and J. Livingston, Eds. (Prentice-Hall, Englewood Cliffs, NJ, 1985), pp. 174–197.
37. J. Rodin, *Science* **233**, 1271 (1986).
38. S. Wolk, *J. Consulting Clin. Psychol.* **44**, 420 (1976).
39. A. H. McFarlane *et al.*, *J. Health Soc. Behav.* **21**, 124 (1980).
40. D. Krantz and R. Schulz, in *Applications of Personal Control, Advances in Environmental Psychology*, A. Baum and J. E. Singer, Eds. (Erlbaum, Hillsdale, NJ, 1980), vol. 2, pp. 23–57.
41. R. Schulz and G. Brenner, *J. Gerontol.* **32**, 323 (1977).
42. E. J. Langer and J. Rodin, *J. Pers. Soc. Psychol.* **34**, 191 (1976).
43. S. Mercer and R. A. Kane, *Health Soc. Work* **4**, 90 (1979).
44. R. Schulz, *J. Pers. Soc. Psychol.* **33**, 563 (1976).
45. ——— and B. H. Hanusa, *ibid.* **36**, 1194 (1978).
46. J. Avorn and E. J. Langer, *J. Am. Geriatr. Soc.* **30**, 397 (1982).
47. J. S. House and R. L. Kahn, in *Social Support and Health*, S. Cohen and S. L. Syme, Eds. (Academic Press, Orlando, FL, 1985), pp. 83–108.
48. T. C. Antonucci, in *Handbook of Aging and the Social Sciences*, E. Shanas and R. H. Binstock, Eds. (Van Nostrand, New York, 1985), pp. 94–128.
49. L. Berkman, *Health and Ways of Living: Findings from the Alameda County Study* (Oxford Univ. Press, New York, 1983).
50. J. S. House, C. Robbins, and H. Metzner, *Am. J. Epidemiol.* **116**, 123 (1982).
51. D. Blazer, *ibid.* **115**, 684 (1982).
52. W. Gruen, *J. Consulting Clin. Psychol.* **43**, 223 (1975).
53. S. Bordow and D. Porritt, *Soc. Sci. Med.* **13A**, 251 (1979).
54. D. Speigel, J. R. Bloom, I. Yalom, *Arch. Gen. Psychiatr.* **38**, 527 (1981).
55. R. D. Caplan *et al.*, *Social Support and Patient Adherence* (Institute for Social Research, Ann Arbor, MI, 1976).
56. J. L. Earp and M. G. Orv, *Prev. Med.* **8**, 155 (1979).
57. D. M. Levine *et al.*, *J. Am. Med. Assoc.* **241**, 1700 (1979).
58. C. M. Parkes, B. Benjamin, R. Fitzgerald, *Br. Med. J.* **1**, 740 (1969).
59. W. D. Rees and S. G. Lutkins, *ibid.* **4**, 13 (1967).
60. A. M. Ward, *ibid.* **1**, 700 (1976).
61. K. Helsing, G. W. Comstock, M. Szklo, *Am. J. Epidemiol.* **114**, 31 (1981).
62. R. L. Kahn, E. Wethington, B. Ingersoll-Dayton, in *Life-span Perspective and Social Psychology*, R. Abeles, Ed. (Erlbaum, Hillsdale, NJ, in press).
63. D. Maddison and A. Viola, *J. Psychosom. Res.* **12**, 4 (1968).
64. P. J. Clayton, *Arch. Gen. Psychiatr.* **30**, 747 (1974).
65. D. Hevman and D. Gianturco, *J. Gerontol.* **28**, 359 (1973).
66. M. Minkler, in *Social Support and Health*, S. Cohen and S. L. Syme, Eds. (Academic Press, Orlando, FL, 1985), pp. 199–216.
67. S. V. Kasl, *Am. J. Public Health* **62**, 379 (1972).
68. ——— and S. Rosenfield, in *Handbook of Mental Health and Aging*, J. Birren and B. Sloane, Eds. (Prentice-Hall, Englewood Cliffs, NJ, 1980), pp. 468–498.
69. S. V. Kasl and L. Berkman, in *Aging: Biology and Behavior*, J. L. McGaugh and S. B. Kiesler, Eds. (Academic Press, New York, 1981).
70. B. Raphael, *Arch. Gen. Psychiatr.* **34**, 1450 (1977).
71. L. I. Pearlin *et al.*, *J. Health Soc. Behav.* **22**, 337 (1981).
72. R. J. Buiman and C. B. Wortman, *J. Pers. Soc. Psychol.* **33**, 351 (1977).
73. L. F. Berkman, in *Social Support and Health*, S. Cohen and S. L. Syme, Eds. (Academic Press, Orlando, FL, 1985), pp. 241–262.
74. T. C. Antonucci *et al.*, *Cancer Symptoms in the Elderly: Support and Response* (Institute for Social Research, Ann Arbor, MI, 1986).
75. J. G. Joseph and S. L. Syme, "Risk factor status, social isolation, and CHD," paper presented at the 21st Conference on Cardiovascular Disease Epidemiology, American Heart Association, San Antonio, TX, March 1981.
76. D. Reed *et al.*, *Am. J. Epidemiol.* **117**, 384 (1983).
77. S. Haynes and M. Feinleib, *Am. J. Public Health* **70**, 133 (1980).
78. J. Medalie and V. Goldbourt, *Am. J. Med.* **60**, 910 (1976).
79. R. Ader, A. Kreutner, H. L. Jacobs, *Psychosom. Med.* **25**, 60 (1963).
80. W. B. Gross, *Am. J. Vet. Res.* **33**, 2275 (1972).
81. J. B. Jemmott and S. E. Locke, *Psychol. Bull.* **95**, 78 (1984).
82. R. W. Bartrop *et al.*, *Lancet* **1977-I**, 834 (1977).
83. S. J. Schleifer *et al.*, "The influence of stress and other psychosocial factors on human immunity," paper presented at the 36th Annual Meeting of the Psychosomatic Society, Dallas, TX, 1979.

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TRENDS IN THE HEALTH OF THE ELDERLY POPULATION[1]

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INTRODUCTION

It is difficult to comprehend that in 1900 only 25% of persons in the United States lived beyond age 65, while by 1985 approximately 70% survived age 65, and 30% lived to be 80 or more (2). Almost 20% of our population dies after age 85, and if present trends continue, within the next 10 or 20 years almost half of deaths will occur after age 80. Most medical attention and costs are expended during the last years of life; this implies that during the twentieth century, resources have been shifted from illnesses of children and young adults to the care of people well over the age of 65. Figure 1 shows the decline in crude mortality rates among older persons that has occurred since 1900. Notice that about half of the observed decline had been completed by 1945, suggesting that better living conditions, sanitation, and nutrition played a major role in reducing mortality and extending life in this century. Following World War II, the downward drift leveled off (the rates actually increased for males) until 1968, when the sharp decline resumed. It has continued to the present time. Age-adjusted mortality rates since 1940 for this portion of the

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population (Figure 2) show a similar but somewhat dampened pattern of decline. Prolonged life expectancy among older people and increasing numbers and proportions of population in the over 65 age group dominate these patterns.

The central issue raised by increasing longevity is that of net gain in active functional years versus total years of disability and dysfunction. Present data are weak but suggest that for each good, active functional year gained, we add about 3.5 compromised years (5, 6, 19, 21, 23). Moreover, this debit is piling up as more and more people enter older age groups. Our statistical measurements are still sparse and crude, leaving us with gaps and guesses about how well or badly we are living during our increased years. Improved information is required for appropriate planning and intelligent preparation of the population for its own aging.

In this review we describe the US elderly population, defined as those aged 65 and older, and its demographic characteristics to set the background for the trend data that follow. In subsequent sections we present current and trend data on mortality in this population and, where they exist, trend data on morbidity and dysfunction. The review concludes with a brief discussion of possible future implications of an ever-growing elderly population.

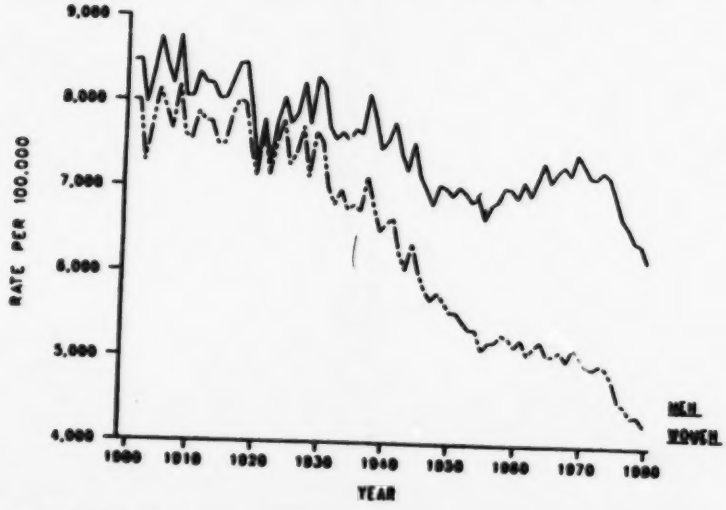

Figure 1 Mortality rates per 100,000 population aged 65 and older by sex: United States, 1900-1980. Source: various annual volumes of *Vital Statistics of the United States*, National Center for Health Statistics.

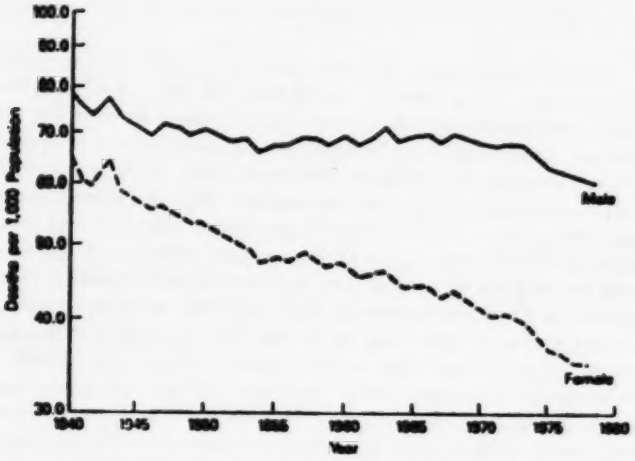

Figure 2 Age-adjusted mortality rates for persons 65 years of age and older, by sex: United States, 1940–1978. Notes: Age adjusted by the direct method to the population 65 years of age and over in the United States as enumerated in 1940, using five age groups. Death rates for the group 85 years of age and over in 1970 used in computation of rates are based on population estimates revised by the US Bureau of the Census to correct for overestimates of the group 100 years of age and over. Source: National Center for Health Statistics, *Vital and Health Statistics*, Series 3, No. 22.

POPULATION CHARACTERISTICS

Age, Sex, and Race

AGE Estimates for 1982 of the population over 65 by age, sex, and race are given in Table 1. The population 65 and older, some 26.8 million persons, now constitutes 11.6% of the total population of 232 million, having risen from 3.1 million in 1900, or 4.1% of the total (21). One observation made in the past which still applies, and will continue to apply, is that the population 65 and older is itself aging (21). Persons aged 75 and older in 1982 made up 40% of the total over age 65. By the year 2000 this is projected to increase to 49% and by 2080 to 56% (24). This is important because it seems to be the point after which disability, morbidity, and mortality rates begin to increase rapidly (9).

SEX A second population characteristic observable from Table 1 is the larger number of females than males in the elderly population. In 1982 there were 1.5 females for each male in the population 65 and older. Indeed, up to age 100, females outnumbered males by increasing margins for each suc-

Table 1 Estimates of the US elderly population by age, sex, and race: July 1, 1982[a,b]

Age group	All races			White			Other		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
All ages	232,057	112,972	119,086	198,483	96,932	101,552	33,574	16,040	17,534
Total, 65 and over	26,822	10,778	16,045	24,294	9746	14,545	2528	1032	1500
65–69	8939	3984	4956	8060	3607	4452	879	377	504
70–74	7195	3020	4175	6488	2722	3765	707	298	410
75–79	5106	1968	3138	4629	1777	2852	477	191	286
80–84	3138	1084	2054	2869	983	1886	269	101	168
85–89	1637	503	1134	1515	461	1053	122	42	81
90–94	620	169	450	570	154	416	50	15	34
95–99	155	41	114	138	36	102	17	5	12
100 and over	32	9	24	25	6	19	*	3	5

[a] Numbers in thousands. Numbers may not add to totals due to rounding.
[b] Source: US Bureau of the Census, *Current Population Reports*, Series P-25, No. 929.

cessive five-year age group. The number of women per 100 men increased from 124 for the age group 65–69 to 278 for the group 95–99. For the subpopulation 100 and older the ratio dropped slightly, but remained greater than 2.5:1. Census Bureau projections for the year 2000 (24) show a small decline in the female-to-male ratio for age groups up to age 85, but beyond that the ratios increase from 234 females per 100 males 85–89 to 500 females per 100 males aged 100 and over. By 2080, however, the projections show the ratios to be more like those of 1982. These data are of considerable importance in terms of medical care and planning because women have consistently made greater use of the health care system than men. Sex differences in survival have been documented in the animal kingdom (7) as well as in human populations (see e.g. 8, 27, 30) and provide opportunity for considerable research into health and longevity.

RACE In 1982 white persons constituted 91% of the population 65 and older and 86% of the total US population. Among elders there was little variation in racial composition by age group, with percentages of whites mostly in the 90–95% range.

Living Arrangements

Most elderly persons live in households with a spouse present (Table 2) (25). However, when one examines living arrangements separately by sex, the differences become quite striking. Approximately three quarters of all elderly males lived with a spouse in 1981 compared with 36% of females in this age group. On the other hand, some 39% of women lived alone compared with 14% of the men. Indeed, the percentage of elderly women living alone has increased steadily from 29% in 1965 to 36% in 1975 to 39% in 1981. At the same time the percentage of men living alone has remained stable at about 13–14%. More recent estimates from the National Center for Health Statistics (16) show that among elders in the noninstitutionalized population, the number of persons aged 65 and older living alone is even greater, having reached 1.6 million for men and 6.4 million for women by 1984 (Table 3). Considering the population aged 75 and older, almost half of the women lived alone, whereas only one fifth of the men lived alone. Thus it appears that fewer women continue to live with others into old age.

Institutional Population

According to data from the National Center for Health Statistics (14), the number of residents in nursing and related care homes was more than 1.5 million in 1982, or 5.8% of the population aged 65 and older. The number of residents has increased steadily since 1969 from 759,343 to 1.1 million in 1973, 1.2 million in 1976, and 1.3 million in 1980 (12). These figures suggest

Table 2 Living arrangements of the population 55 years and over, by age and sex: 1965–1981[a,b]

Living arrangements and year	Male				Female			
	55–64 years	65–74 years	75 years and over	65 years and over	55–64 years	65–74 years	75 years and over	65 years and over
1981								
Number	10,256	6874	3632	10,506	11,671	8981	6555	15,536
In households	10,107	6727	3375	10,102	11,563	8780	5785	14,565
Living alone	928	761	689	1450	2051	3075	2959	6034
Spouse present	8275	5429	2354	7783	7762	4247	1263	5510
Living with someone else	904	537	332	869	1750	1458	1563	3021
Not in households	149	147	257	404	108	201	770	971
Percentage	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In households	98.5	97.9	92.9	96.2	99.1	97.8	88.3	93.8
Living alone	9.0	11.1	19.0	13.8	17.6	34.2	45.1	38.8
Spouse present	80.7	79.0	64.8	74.1	66.5	47.3	19.3	35.5
Living with someone else	8.8	7.8	9.1	8.3	15.0	16.2	23.8	19.4
Not in households	1.5	2.1	7.1	3.8	0.9	2.2	11.7	6.3
1975								
Percentage	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In households	98.1	97.1	92.7	95.6	98.8	97.5	90.0	94.4
Living alone	7.6	12.1	18.2	14.2	17.4	32.9	40.6	36.0
Spouse present	80.7	79.6	63.3	74.0	66.1	46.2	28.1	35.6
Living with someone else	9.7	5.4	11.2	7.4	15.3	15.4	29.3	22.8
Not in households	1.9	2.9	7.3	4.4	1.2	2.5	10.0	5.6
1970								
Percentage	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In households	97.6	96.4	93.7	95.5	98.4	97.6	91.1	95.0
Living alone	7.2	11.3	19.1	14.1	17.1	31.6	37.0	33.8
Spouse present	82.3	75.2	60.4	69.9	63.8	43.5	19.1	33.9
Living with someone else	8.1	9.9	14.2	11.5	17.5	22.4	35.0	27.4
Not in households	2.4	3.6	6.3	4.5	1.6	2.4	8.9	5.0
1965								
Percentage	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
In households	97.5	97.5	93.6	96.2	98.4	97.4	92.0	95.3
Living alone	7.0	11.7	15.7	13.1	15.5	27.9	29.9	28.6
Spouse present	80.3	75.3	54.0	67.9	63.8	43.3	19.0	34.1
Living with someone else	10.2	10.5	23.9	15.2	19.1	26.1	43.1	32.6
Not in households	2.5	2.5	6.4	3.8	1.6	2.6	8.0	4.7

[a] Numbers in thousands. Total resident population excluding members of the Armed Forces in military barracks. Figures are for March of year indicated.
[b] Source: US Bureau of the Census, *Current Population Reports*, Series P-20, Nos. 144, 287, and 272, and unpublished data for March 1970 revised.

Table 3 Percentage distribution of people age 65 years and over by age, sex, and marital status, according to whether they lived alone or with others: United States, January–June 1984*

Age, sex, and marital status	Total	Living alone	Living with others
		Number	
Sample	9982	1809	4173
		Number in thousands	
Estimated population	26,589	8918	18,272
		Distribution (%)	
Total	100.0	100.0	100.0
Age			
65–74 years	61.7	50.2	66.8
75–84 years	30.7	38.6	27.2
85 years and over	7.6	11.2	6.0
Sex			
Male	40.8	20.2	49.9
Female	59.2	79.8	50.1
Marital status			
Married	54.7	0.0	78.6
Widowed	34.1	77.1	15.2
Divorced	6.3	14.1	2.9
Never married	4.4	8.1	2.8

*Source: National Center for Health Statistics, National Health Interview Survey, Advance Data No. 116, 1986.

an average annual increase of more than 60,000 residents. The data in Fig 3 show the changes by age in use of nursing homes for those years for wh data are available from the National Nursing Home Surveys. Here we see large increase in the rate of nursing home use as the elderly population b becomes older. Given that the fastest-growing segment of the elderly popu tion is that group aged 85 and older, these data imply a substantial increas the use of nursing homes in the future.

MORTALITY

As discussed above, length of life in the United States has increased rem ably in the twentieth century. In recent years, the death rate for the popula aged 65 and older has declined considerably, particularly since 1968 (Ta 4). Much of this decline has been shown to be due to reductions in the de rates from cardiovascular disease (17). A concomitant increase in life pectancy has occurred for various subgroups of the elderly population shown in Table 4. Our discussion of mortality and life expectancy is based official vital statistics from the National Center for Health Statistics (NCH

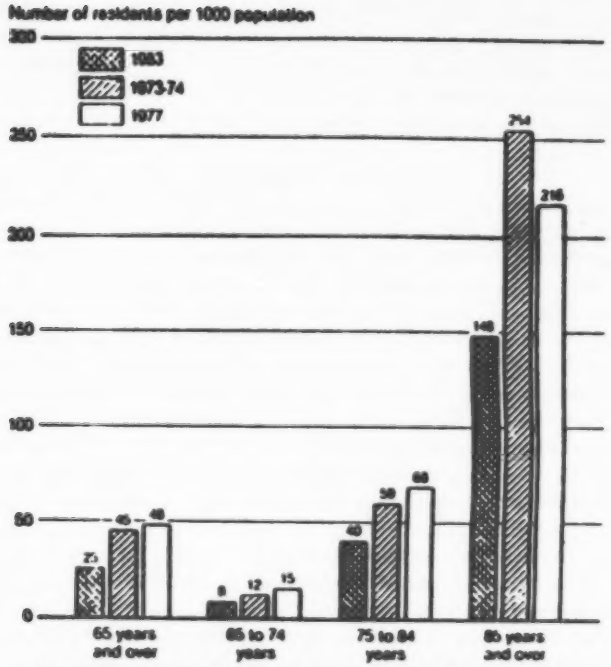

Figure 3 Use of nursing homes by the elderly, by age groups, United States, 1963, 1973–1974, and 1977. Source: National Center for Health Statistics, National Nursing Home Surveys.

These data, though subject to imperfections inherent in large reporting systems, provide a comprehensive set of indicators useful in assessing the influence of specific diseases on human populations. Furthermore, the vital statistics system has covered the entire United States since 1940, thus allowing for the examination of trends of considerable length.

Sex Differences

As shown in Figures 1 and 2, sex differences in mortality among the elderly have persisted throughout this century with some widening of the difference in recent years. Verbrugge (27), in her discussion of sex differences in mortality, provides age-specific figures indicating increases in the male-to-female ratio of mortality rates from 1.08 in 1920 to 1.97 in 1977 for the 65–74 year age group. This ratio fell slightly to 1.88 in 1982 (13). For persons aged 75–84 the sex ratios of mortality rates have increased from 1.05 in 1920 to 1.64 in 1982. Similar figures for the 85 and older population have risen from

1.03 in 1920 to 1.28 in 1982. Likewise, life expectancy differences have persisted over time for the elderly population, as shown in Table 4. Note that the sex difference in life expectancy at age 65 for whites has risen from 1.5 years in 1940 to 4.4 years in 1982. For persons of other races, the sex differences are smaller but the overall pattern across time is similar. In sum, the increase in females' survival advantage over males has been and continues to remain substantial.

Race Differences

Differences in life expectancy at birth between races (white and "all other") decreased considerably from 1940 to 1982 (13, 21). One can see from Table 4, however, that racial differences in life expectancy at age 65 are small and that there has been little change in the differences during these years. In 1982, death rates were higher for the "all other" population than for whites for all adult age groups up to age 80, but lower for persons over 80 years of age (13). This "crossover" effect occurred at age 75 for males, but not until age 80 for females, the female effect clearly having the stronger influence on the total racial difference. It is possibly an artifact of census reporting or an example of survival of the heartiest cohort, although neither possibility can be confirmed with present data. The racial crossover in mortality has been observed in previous studies of mortality among the elderly (10, 21).

Cause of Death

Death rates for the ten leading causes of death for 1982 are presented in Table 5 by 1982 rank order along with similar data for previous years. Note that the cause-of-death information for 1982 is not entirely comparable to that for the

Table 4 Death rate for the population 65 years and over (by age) and expectation of life at age 65 (by sex and color): 1940 to 1982*

Age	1940	1954	1968	1973	1978	1982
	Death rates per 1000 population					
65–74 years	48.4	37.9	37.2	34.4	30.3	28.9
75–84 years	112.0	86.0	82.9	79.3	71.9	63.3
85 years and over	235.7	181.6	195.8	174.3	147.0	130.5
Total 65 years and over	72.2	58.6	61.4	58.7	52.9	50.5
	Expectation of life at age 65					
Total	12.8	14.4	14.6	15.3	16.3	16.8
White male	12.1	13.1	12.8	13.2	14.0	14.5
All other male	12.2	13.5	12.1	13.1	14.1	14.1
White female	13.6	15.7	16.4	17.3	18.4	18.9
All other female	13.9	15.7	15.1	16.2	18.0	18.2

*Source: National Center for Health Statistics, various annual volumes of *Vital Statistics of the United States* and various issues of *Monthly Vital Statistics Report*.

years prior to 1979 because of the revision of the *International Classification of Diseases (ICD)* (26), implemented in 1979. Though the data are not comparable across time in the strictest sense, the data are more than adequate for examining general tendencies. As in the 1970s, the 1982 rates showed that chronic diseases remained the dominant causes of death among elderly persons. Cardiovascular diseases and malignant neoplasms occupied four of the top six rankings among causes of death, accounting for 76% of all deaths among the elderly. In the remainder of this section, we examine the changes in mortality rates by cause, to the extent that such comparisons can be made.

CARDIOVASCULAR DISEASE The number one cause of death among the elderly population and indeed, in the total population, is heart disease, which accounts for almost half of all deaths among the elderly. Two other cardiovascular diseases recognized by the International Classification also show up in the leading cause list, namely, cerebrovascular disease and atherosclerosis. Together these three causes comprise 97% of all cardiovascular deaths. Kovar (9) reported the strength of the influence of these conditions on total mortality in that some 55% of the overall decline in total mortality between 1950 and 1975 was due to the decline in heart disease mortality alone. Furthermore, the decline has continued into the 1980s, as seen in Table 5, the rates having decreased an additional 7% between 1975 and 1982 for persons aged 65 and older. Cardiovascular mortality rises exponentially with age (Table 5 and Figure 4), and the cardiovascular curve parallels the curve for total mortality, suggesting an overall underlying relationship between aging and cardiovascular mortality. That rates are declining over time implies that death is being postponed to older ages, when an individual becomes more susceptible to death from cardiovascular disease. Figure 5 shows that in spite of the declines in cause-specific mortality rates for cardiovascular diseases, these diseases continue to dominate the cause-of-death distribution, accounting for an overwhelming proportion of deaths in the elderly population, especially among persons aged 85 and older. Thus, it appears that the influence of cardiovascular disease on mortality in older people will continue for the foreseeable future and that recent gains, while considerable, have limited impact on the major mortality patterns.

CANCER As seen in Table 5, the cancers rank second to heart disease as causes of death among the elderly. In 1982 these conditions comprised about 20% of deaths among persons 65 and older, an increase from 16% of all elderly deaths in 1970, as mortality rates rose from 923 deaths per 100,000 population in 1970, to 1022 in 1982. The data in Figure 5 show this increase as a percentage of total mortality from 1960 to 1980. The rise in cancer death rates has not equalled the magnitude of the decline in cardiovascular deaths.

Table 5 Death rates for the ten leading causes of death among persons 65 years and over: 1970, 1975, 1978, 1982 (by rank order and by age for 1982)[a,b]

Cause of death and ICD code		1970	1975	1978	1982			
					65 and over	65–74	75–84	85 and over
All causes		5892.1	5432.4	5293.5	5048.9	2885.2	6329.8	15,048.3
Diseases of heart	390–398 402 404–429	2683.3	2403.9	2331.1	2223.9	1156.4	2801.4	7341.8
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	140–208	923.4	961.1	1002.4	1022.0	824.9	1238.7	1598.6
Cerebrovascular disease	430–438	647.5	729.7	622.0	505.7	193.5	675.1	2000.8
Chronic obstructive pulmonary disease and allied conditions[c]	490–496	102.2	80.5	66.1	176.8	131.1	236.0	278.0
Pneumonia and influenza[c]	480–487	200.4	187.1	193.2	152.9	47.6	183.4	747.8
Atherosclerosis	440	149.7	123.0	115.0	95.2	20.6	102.9	563.0
Diabetes mellitus	250	131.4	112.9	101.3	94.0	60.1	125.4	212.1
Accidents	E-800-E949	135.9	109.6	100.3	85.8	50.9	103.9	255.9
Motor vehicle accidents	E-810-E825	36.2	25.3	24.5	20.4	17.5	25.2	23.7
All other accidents	E-800-E807 E-826-E949	99.7	84.3	75.8	65.4	33.4	78.7	232.2
Nephritis, nephrotic syndrome and nephrosis[c]	580–589	23.7	23.2	25.6	53.5	25.8	69.7	182.8
Chronic liver disease and cirrhosis	571	37.1	36.6	36.3	35.3	40.1	31.1	17.9
All Other causes	Residual	657.5	664.9	700.6	603.4	334.1	762.2	1849.6

[a] Sources: National Center for Health Statistics: *Vital Statistics of the United States, 2*, 1970, 1975, and 1978; *Advance Report of Final Mortality Statistics, 1982*, Monthly Vital Statistics Report, 33:9, Supplement. DHHS Pub. No. (PHS) 85-1120. Public Health Service, Hyattsville, Md., 1984.

[b] Rates per 100,000 population in age group.

[c] Cause-of-death titles and numbers are based on the *Ninth Revision International Classification of Diseases* (26). Because of decennial revision of the classification and changes in rules of cause-of-death coding, the 1982 rates in this table are not comparable to those prior to 1980 for those causes indicated by a footnote. Pneumonia and influenza trends are subject to large fluctuations due to epidemics in some years.

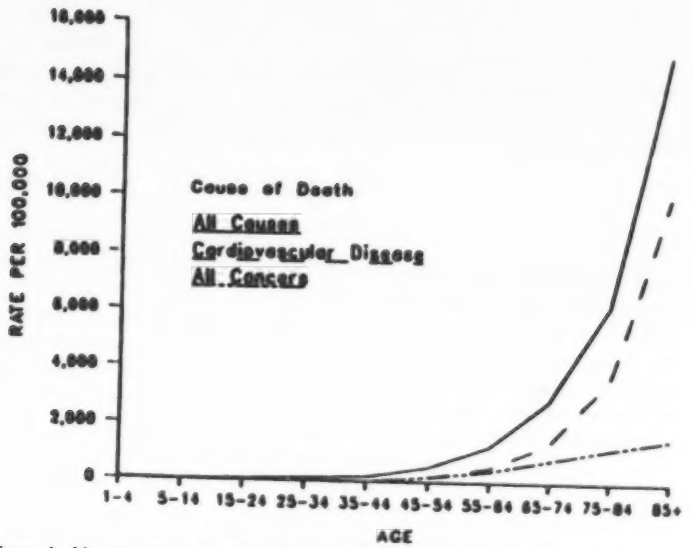

Figure 4 Mortality rates per 100,000 population for selected causes, United States, 1982. Source: National Center for Health Statistics, *Monthly Vital Statistics Report*, Vol. 33, No. 9, Supplement, 1984.

and, as can be seen in Figure 4, the rise in cancer mortality with age is quite modest compared to that for cardiovascular disease. Further, for the population 85 and older, there has been essentially no increase in cancer as a proportion of all deaths. These facts lend further credence to the idea that postponement of death at younger ages leads to additional cardiovascular deaths at more advanced ages. By age 85 the ratio of deaths from cardiovascular diseases to cancers is about seven to one (Figure 5).

PNEUMONIA AND INFLUENZA Pneumonia and influenza, the fifth leading cause of death reported among the elderly, accounted for some 3% of the total death rate for the 65 and older population in 1982. Trends in pneumonia and influenza mortality are difficult to interpret because of the strong influence of epidemics during the period 1968–1976. For example, Alling et al (1) described three major influenza epidemics during the period 1968–1976. Thus, the bulk of the data in Table 5 would require interpretation in light of such temporal variation.

One other important aspect of mortality due to pneumonia and influenza is the similarity of the age-specific increase in these rates for 1982 with those for cardiovascular disease. Though the number of deaths is but 5% of the number

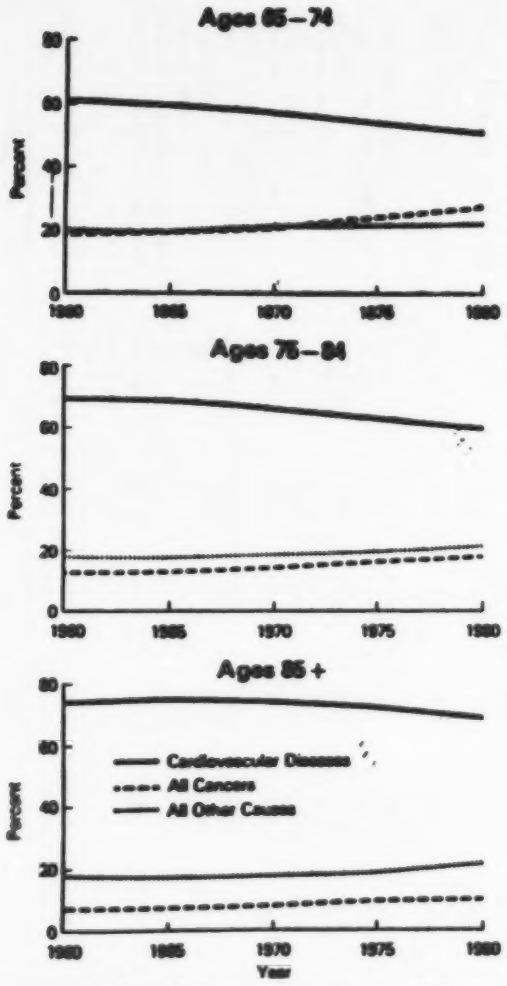

Figure 5 Percentage of total mortality for specific causes, by age: United States, 1960–1980. Source: National Center for Health Statistics, *Vital Statistics of the United States*.

of cardiovascular deaths, the pattern of increase with age is almost identical to that for cardiovascular disease. With the anticipated future increases in number of the 85 and older population, consideration of pneumonia and influenza as a cause of death is likely to attain greater prominence, and more specific and accurate diagnoses will become increasingly important.

DIABETES MELLITUS Diabetes mellitus, the seventh leading cause of death among the elderly in 1982, has shown modest declines since 1970. The 1982 rates show a greater than three-fold increase from ages 65–74 to ages 85 and older. The additional chronic conditions usually present in those individuals with diabetes and inconsistencies and biases in reporting diabetes as a cause of death preclude further interpretation of these data.

ACCIDENTS Accidents, the eighth leading cause of death in 1982, showed a pattern of decline from the 1950s into the 1970s that appears to have continued into the 1980s. Kovar (9) reported a reduction of almost one half in mortality due to accidents between 1950 and 1975, and an additional 22% drop in mortality between 1975 and 1982 can be seen. Mortality rates for motor vehicle accidents fell by almost one half during the period 1970–1982. As with other conditions, age-specific trends for accidents showed a substantial rise with age. Factors believed to contribute to increased risk in older individuals include concomitant medical conditions, decreased sensory abilities, and drug effects.

OTHER CAUSES Of the remaining conditions shown in Table 5, only chronic liver disease and cirrhosis were unaffected by the revision of the ICD in 1979. There was little variation in mortality for these conditions during the 1970s. Further, as a cause of death in the elderly, this group of conditions becomes less important as an individual ages. Whereas the pulmonary conditions cited in 1982 as the fourth leading cause of death declined significantly during the 1970s, the regrouping that resulted from the ninth revision of the ICD left no possibility for carrying the comparison over time into the 1980s. As additional data accumulate, the nature of the trend for these causes of death will become more apparent. As with pulmonary disease and allied conditions, trend data for deaths due to nephritis, nephrotic syndrome, and nephrosis are not presently interpretable, though little variation in the death rates was observed in the 1970s. Again, additional mortality data from the ninth revision of the ICD will be required before trends for these causes of death can be adequately assessed.

MORBIDITY AND DISABILITY

Although cause-specific mortality data are widely available and extremely useful for assessment of trends in various diseases and conditions that affect the elderly population, there is no national data system in place to facilitate such assessments for morbidity and disability. A variety of data sources reporting prevalence and incidence of certain diseases and conditions exist among them the Framingham Heart Study; the Surveillance, Epidemiology and End Results Program (SEER) of the National Cancer Institute, the

morbidity and mortality reporting system of the Centers for Disease Control; the National Long Term Care Survey [see e.g. Manton (11)]; the Established Populations for Epidemiologic Studies of the Elderly (EPESE) of the National Institute on Aging; and the various national surveys conducted by the National Center for Health Statistics (NCHS). However, each of these systems is limited in scope, either geographically or by other characteristics of the population such as age or living arrangements, such that complete assessment of health status and quality of life is not possible. Nevertheless, examination of some of the available data is useful to determine what changes have taken place in recent years. The data we examine for this purpose are mainly those from the NCHS National Health Interview Survey (NHIS) (15), although brief comments are made regarding some other data sources.

The National Health Interview Survey

The NHIS has been conducted continuously since 1957, providing estimates of disability and various acute and chronic conditions and utilization of medical services and facilities, based on interview reports from respondents regarding their own and other household members' experience. The surveys are limited to the noninstitutionalized population, and no reports are made for household members who died during the year prior to the interview. Thus, the data from the surveys would be expected to show lower rates of morbidity than would be obtained if one were able to report the experience of institutionalized persons and persons who died shortly before the interview took place.

Several researchers have reported results of analyses using NHIS data of trends in measures of morbidity in the elderly. Among them, Kovar (9) found an increase in limitation of activity for the 65 and older population between 1965 and 1975, which was attributed to increases in the number of persons in the oldest age groups of the population. Colvez & Blanchet (4) found increases in restricted activity for men aged 65 and older between 1966 and 1974 and a decrease for women, but the reported numbers of persons whose main activity had become impossible increased for both men and women. Verbrugge (28) found increases in days of restricted activity between 1958 and 1980 and in limitation of activity from 1970 to 1980, but no changes were seen in either self-reported health or days of bed disability. The former is seen clearly in Figure 6. One study (18) did show decreases in some measures, but only after adjusting the data by dividing the disability measures for the elderly by the rates for the entire population.

In analyses involving data sets other than NHIS, the results were similar in that little change in morbidity was found to have occurred in either the Canadian Health Survey (29) or in the National Survey of the Aged (20). The fact of little reported change in morbidity gives cause for serious concern, since increasing longevity implies a tremendous addition to the number of

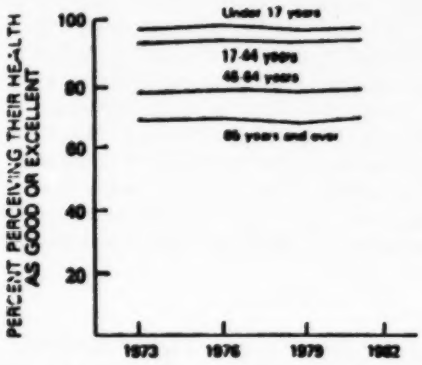

Figure 6 Perceived health status, by age: United States, 1973–1981. Source: National Center for Health Statistics, National Health Interview Survey.

disabled people as the population continues to age and the percentage and absolute numbers of older persons increase. The number of cases of chronic diseases and conditions shown in Table 6 is bound to increase as the demographic forces drive the population into older ages, unless dramatic decreases take place in morbidity among the elderly. Whether the changes (or lack of changes) reported in this section are a result of changes in the sensitivity of the screening instrument, changes in attitude toward self-reporting, or improved survival of the chronically ill, we simply do not have the data to determine. It appears that the net gain is more person-years of disability (2).

The data in Table 6 show the ten most common chronic conditions reported in the noninstitutionalized elderly population in 1982 (15). Among these conditions, only heart disease, hypertension, and diabetes are included in the ten leading causes of death (Table 5). Thus we see substantial proportions of the elderly with non-life-threatening but disabling conditions. Further, as stated above, demographic changes that are now taking place in the elderly population would imply that substantial increases in the number of persons reporting these conditions will take place.

Cancer

Missing from the data in Table 6 but important in the consideration of trends in morbidity are the cancers. Cancer registry data from the SEER Program of the National Cancer Institute provide information on trends in cancer incidence for selected geographic areas by site for the period 1973–1977 and 1978–1981. As shown in Table 7, cancer incidence rates rose not only with age but also over time, though the changes over time were relatively small overall (the largest difference being about 5% between the two time periods)

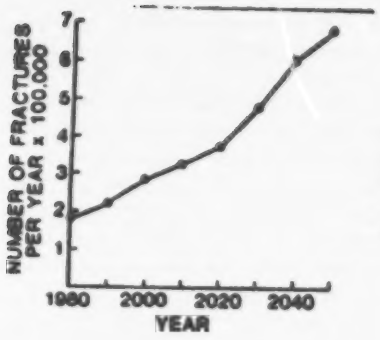

Figure 7 Projected number of hip fractures annually in the United States, by age: 1980–2050. Source: National Center for Health Statistics and US Bureau of the Census projections.

activities. These unpublished data suggest that dementia, arthritis, peripheral vascular disease and cerebrovascular disease are the conditions most frequently reported to affect this group, conditions that constitute almost two thirds of the chronic disabling conditions reported. Hip and other fractures, ischemic heart disease, hypertension, and diabetes are also important as reported causes of disability in this population. Note that there is considerable overlap with the condition list from the NHIS (Table 6), although the two groups surveyed are not comparable because the condition lists in the two questionnaires were not the same, the NHIS age groups cover a wider span, and the NHIS participants included disabled and nondisabled individuals.

Utilization of Services

The use of medical services by the elderly and the effects of Medicare policy and hospital utilization would be a separate study unto itself. However, the data in Table 9 are worth examining to see how hospital use by the elderly has

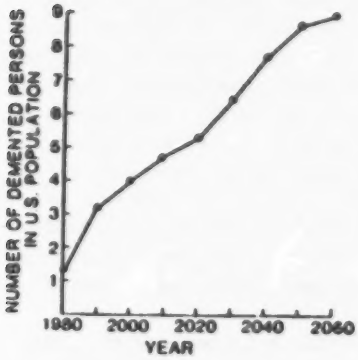

Figure 8 Projected number (in millions) of demented persons in the United States, by age: 1980–2050. Source: National Institute on Aging prevalence estimates and US Bureau of the Census projections.

Table 8 Probability of selected medical conditions, not including sensory impairments, as the first reported cause of chronic disability among disabled persons, 85 years and older: United States, 1982*

Condition	Percent
Dementia	19.43
Arthritis	16.75
Peripheral vascular disease	14.88
Cerebrovascular disease	12.86
Hip and other fractures	8.81
Ischemic heart disease	1.88
Hypertension	1.38
Diabetes	1.01
Cancer	.91
Emphysema and bronchitis	.26

*Source: Health Care Financing Administration, 1982 National Long-Term Care Survey.

changed since 1967. Note that the number of hospital admissions showed a steady increase, averaging about 7.5% per year for the elderly until 1984, when the first decrease in number of admissions was seen. On the other hand, the average length of stay declined steadily from 1967 to 1983 at an average rate of about 1.5% per year, whereas in 1984 it declined 8.2%. Though older people have as many health problems as in the past, these data suggest that because of changes in the nature and settings of treatment, as well as recent changes in policy, particularly regarding Medicaid expenditures and payment mechanisms in Medicare (Diagnosis-Related Groups, etc), new patterns of utilization of service are rapidly evolving. The impact of the changes on health and quality of life is unknown, and rigorous evaluation of the phenomenon is, for the most part, remedial or totally absent.

CONCLUSIONS

Older people are living longer, increasing in absolute numbers, and comprising a steadily increasing proportion of the total population. This constellation has not been witnessed before in the history of humankind.

Measurement of trends in health among the older population has produced an array of equivocal data, at best revealing only modest improvement or a stationary pattern. The quality of life, as currently measured, again shows no dramatic capturing of improved years in later life. The large variability among older persons should be emphasized. many live fully actively and independently into their nineth and tenth decades, whereas others have prolonged periods of disability and need for care. It appears that we are adding modestly to the years of active life expectancy while, on average, adding more rapidly to the number of years being lived with increasing disabilities

Table 9 U.S community hospital admissions, total hospital days, and average length of stay for individuals 65 years of age or older and for those under age 65: 1967–1985[a]

	Individuals 65 years of age or older						Individuals under 65 years of age					
Year	Hospital admissions	Percent change	Total hospital days	Percent change	Average length of stay	Percent change	Hospital[b] admissions	Percent change	Total hospital[b] days	Percent change	Average[b] length of stay	Percent change
1967	5,336,902	—	69,547,738	—	13.0	—	27,201,678	0.9	217,418,356	4.2	8.0	3.9
1968	5,711,489	7.0	76,316,987	9.7	13.4	3.1	27,768,383	2.1	225,643,082	3.8	8.1	1.3
1969	6,058,319	6.1	78,778,335	3.2	13.0	−3.0	28,353,396	2.1	228,567,623	1.3	8.1	0.0
1970	6,216,456	2.6	78,421,746	−0.5	12.6	−3.1	30,126,907	6.3	235,348,122	3.0	7.8	−3.7
1971	6,427,596	3.4	78,576,541	0.2	12.2	−3.2	30,260,125	0.4	231,784,890	−1.5	7.7	−1.3
1972	6,822,647	6.1	80,093,782	1.9	11.7	−4.1	31,035,931	2.6	234,434,164	1.1	7.6	−1.3
1973	7,213,115	5.7	82,190,399	2.6	11.4	−2.6	32,121,717	3.5	238,869,031	1.9	7.4	−2.6
1974	7,646,739	6.0	86,450,145	5.2	11.3	−0.9	33,308,813	3.7	245,744,098	2.9	7.4	0.0
1975	7,991,787	4.5	89,739,216	3.8	11.2	−0.9	33,409,306	0.3	246,622,352	0.4	7.4	0.0
1976	8,552,939	7.0	94,501,833	5.3	11.0	−1.8	34,531,941	3.4	254,601,499	3.2	7.4	0.0
1977	8,927,150	4.4	95,624,853	1.2	10.7	−2.7	35,403,611	2.5	256,429,376	0.7	7.2	−2.7
1978	9,362,122	4.9	99,071,308	3.6	10.6	−0.9	35,561,442	0.4	256,708,259	0.1	7.2	0.0
1979	9,856,467	5.3	102,320,587	3.3	10.4	−1.9	36,507,639	2.7	260,791,942	1.6	7.1	−1.4
1980	10,516,916	6.7	109,102,262	6.6	10.4	0.0	37,562,381	2.9	269,615,111	3.4	7.2	1.4
1981	10,835,895	3.0	112,293,971	2.9	10.4	0.0	37,881,937	0.9	272,956,933	1.2	7.2	0.0
1982	11,277,621	4.1	114,184,178	1.7	10.1	−2.9	37,899,241	0.0	271,422,385	0.6	7.2	0.0
1983	11,811,682	4.7	114,313,157	0.1	9.7	−4.0	37,691,924	−0.5	264,504,444	−2.5	7.0	−2.8
1984	11,507,975	−2.6	102,970,633	−9.9	8.9	−8.2	36,304,503	−3.7	241,779,724	−8.6	6.7	−4.3
1985	10,903,846	−5.2	95,509,896	−7.2	8.8	−1.1	34,535,127	−4.9	226,128,547	−6.5	6.5	−3.0

[a]Source: American Hospital Association National Hospital Panel Survey.

This phenomenon is likely to persist with its effects magnified, since it is occurring during a period in which family size is shrinking and usual support givers, particularly women, will be increasingly entering the work force.

The major causes for diminished quality of life in later years are nonfatal conditions that are closely related to age. They include osteoarthritis, deafness, blindness, and Alzheimer disease and related disorders. Modest progress is, of course, being made and must be fostered in basic research on diseases and physiologic conditions associated with aging, as well as investigation of the social patterns and the self-care aspects that could improve the health status in later years.

Trends in health care are in a dynamic and transitional phase. Financial limits are being imposed, and the implications of these limits are not easily discerned. A clearly formulated national health policy, in particular integrating long-term care into overall comprehensive approaches to health care, is a laudable but probably unattainable short-term goal.

In spite of the size and complexity of the array of problems, there is reason for optimism. First, we are not doing that badly relative to the rest of the world in this era. At age 65, life expectancy in the US exceeds that of most industrial nations. In fact, female life expectancy at age 65 is longest in the US, and for males the US figures are exceeded only by those for Norway, Sweden, and Israel (25). Second, we are rapidly creating a new political will, in that our health care givers, politicians, and, indeed, the healthy and the unwell are all being increasingly exposed to aging and the positive and negative associations with that state. The more we become familiar with the problems of dementia, the anxieties of living alone, and the complications of funding and quality-assured management of long-term care, with its subcomponent of nursing home care, the closer we are to better solutions.

Human history has not had the time to instruct us in the optimal handling of a large proportion of the population living into ages that are accompanied by mental, physical, and social fragility. We lack knowledge about the natural history of aging. Gaining this information should receive our highest priority. We must continue to amass and analyze data on trends as they have occurred up to the present time, and particularly in the future as our abilities to intervene become less feeble.

Literature Cited

1. Alling, D. W., Blackwelder, W., Stuart-Harris, C. 1981. A study of excess mortality during influenza epidemics in the United States, 1968-1976. *Am. J. Epidemiol.* 113:30-43
2. Brody, J. A. 1985. Prospects for an aging population. *Nature* 315:463-66
3. Brody, J. A., Farmer, M. E., White, L. R. 1984. Absence of menopausal effect on hip fracture incidence in white females. *Am. J. Public Health* 74:1097-98
4. Cohen, A., Blanchet, M. 1981. Decline in mortality trends in the United States population 1968-1976: Analysis of reported causes. *Am. J. Public Health* 71:961-71
5. Fenkelstein, M. 1980. Recommendations for future research. In *Second Conference on the Epidemiology of Aging*, ed. S. G. Haynes, M. Feinleib, pp. 399-

* Does not include births.

62. NIH Publ. No. 80-969. Washington DC: US GPO
6. Greenberg, E. 1977. The failure of success. *Milbank Mem. Fund. Q./Health Soc.* 55:3–24
7. Hamilton, J. B. 1948. The role of testicular secretions as indicated by the effects of castration in man and the short lifespan associated with maleness. In *Recent Progress in Hormone Research*, Vol. 3. New York: Academic
8. Hazzard, W. R. 1986. Biological basis of the sex differential in longevity. *J. Am. Geriatric Soc.* 34:455–71
9. Kovar, M. G. 1977. Elderly people: The population 65 years and over. In *Health, United States, 1976–1977*. DHEW Publ. No. (HRA) 77-1232. Hyattsville, Md: Natl. Cent. Health Stat.
10. McMillen, M. 1984. The impact of revised death rates for the 1970's. *Proc. Am. Statist. Assn., Social Statist. Sect., Philadelphia, 1984*
11. Manton, K. G. 1985. *Past and future life expectancy increases at later ages: Their implication for the linkage of chronic morbidity, disability, and mortality*. Presented at Ann. Meet. Am. Public Health Assoc., 113th, Washington DC
12. National Center for Health Statistics. 1984. Trends in nursing and related care homes and hospitals, United States, selected years 1969–80. *Vital and Health Statistics*, Ser. 14, No. 30. DHHS Publ. No. (PHS) 84-1825. Washington DC: US GPO
13. National Center for Health Statistics. 1984. Advance report, final mortality statistics, 1982. *Monthly Vital Statistics Report*, Vol. 33, No. 9, Suppl. DHHS Publ. No. (PHS) 85-1120. Hyattsville, Md.: Public Health Serv.
14. National Center for Health Statistics. 1985. An overview of the 1982 National Master Facility Inventory survey of nursing and related care homes. *Advance Data from Vital and Health Statistics*, No. 111. DHHS Publ. No. (PHS) 85-1250. Hyattsville, Md.: Public Health Serv.
15. National Center for Health Statistics. 1985. Current estimates from the National Health Interview Survey: United States, 1982. *Vital and Health Statistics*, Ser. 10, No. 150. DHHS Publ. No. (PHS) 85-1578. Washington DC: US GPO
16. National Center for Health Statistics. 1986. Aging in the eighties, age 65 years and over and living alone; contacts with family, friends, and neighbors. *Advance Data from Vital and Health Statistics*, No. 116. DHHS Publ. No. (PHS) 86-1250. Hyattsville, Md.: Public Health Serv.
17. National Institutes of Health. 1979. *Proc. Conf. on Decline in Coronary Heart Disease Mortality, 1979*. NIH Publ. No. 79-1610
18. Palmore, E. B. 1985. *Trends in health of the aged*. Presented at Ann. Meet. Gerontol. Soc. Am., 38th, New Orleans
19. Schneider, E. L., Guralnik, J. M. 1987. The compression of morbidity: A dream which may come true, somedayl *Gerontol. Biomed. Acta*. In press
20. Shanas, E. 1982. *National survey of the aged*. DHHS Publ. No. (OHDS) 83-20425. Washington DC: Admin. on Aging
21. Siegel, J. 1980. Recent and prospective demographic trends for the elderly population and some implications for health care. See Ref. 5, pp. 289–316
22. US Bureau of the Census. 1979. Social and economic characteristics of the older population: 1978. *Current Population Reports*, Ser. P-23, No. 85. Washington DC: US GPO
23. US Bureau of the Census. 1983. America in transition: An aging society. *Current Population Reports*, Ser. P-23, No. 128. Washington DC: US GPO
24. US Bureau of the Census. 1984. Projections of the population of the United States, by age, sex and race: 1983 to 2080. *Current Population Reports*, Ser. P-25, No. 952. Washington DC: US GPO
25. US Bureau of the Census. 1984. Demographic and socioeconomic aspects of aging in the United States. *Current Population Reports*, Ser. P-23, No. 138. Washington DC: US GPO
26. US Dept. Health and Human Services. 1980. *International Classification of Diseases, 9th Revision*. DHHS Publ. No. (PHS) 80-1260. Washington DC:US GPO
27. Verbrugge, L. M. 1981. Recent trends in sex mortality differentials in the United States. *Women and Health* 5:17–37
28. Verbrugge, L. M. 1984. Longer life but worsening health? Trends in health and mortality of middle-aged and older persons. *Milbank Mem. Fund. Q./Health Soc.* 62:475–519
29. Wilkins, R., Adams, O. B. 1983. Health expectancy in Canada, late 1970s: Demographic, regional and social dimensions. *Am. J. Public Health* 73:1073–80
30. Wingard, D. 1982. The sex differential in mortality rates: Demographic and behavioral factors. *Am. J. Epidemiol.* 115:205–16

SPECIAL ARTICLE

AGING, NATURAL DEATH, AND THE COMPRESSION OF MORBIDITY

JAMES F. FRIES, M.D.

Abstract The average length of life has risen from 47 to 73 years in this century, but the maximum life span has not increased. Therefore, survival curves have assumed an ever more rectangular form. Eighty per cent of the years of life lost to nontraumatic, premature death have been eliminated, and most premature deaths are now due to the chronic diseases of the later years. Present data allow calculation of the ideal average life span, approximately 85 years. Chronic illness may presumably be postponed by changes in life style, and it has been shown that the physiologic and psychologic markers of aging may be modified. Thus, the average age at first infirmity can be raised, thereby making the morbidity curve more rectangular. Extension of adult vigor far into a fixed life span compresses the period of senescence near the end of life. Health-research strategies to improve the quality of life require careful study of the variability of the phenomena of aging and how they may be modified. (N Engl J Med. 1980; 303:130-5.)

THIS article discusses a set of predictions that contradict the conventional anticipation of an ever older, ever more feeble, and ever more expensive-to-care-for populace. These predictions suggest that the number of very old persons will not increase, that the average period of diminished physical vigor will decrease, that chronic disease will occupy a smaller proportion of the typical life span, and that the need for medical care in later life will decrease.

In forecasting health, the interaction between two sets of observations has gone unnoticed. The first set demonstrates that the length of the human life is fixed — that man is mortal and that natural death may occur without disease. The second set indicates that chronic disease can be postponed and that many of the "markers" of aging may be modified. If these two premises are granted, it follows that the time between birth and first permanent infirmity must increase and that the average period of infirmity must decrease.

THE LENGTH OF LIFE IS FIXED

Speculation about immortality is rooted in antiquity and in human hope. The bioscientific, medical model of disease, our prevalent model, assumes that death is always the result of a disease process; if there were no disease, there would be no death. This view is hard to defend.

If relative immortality were possible, one would expect to find some persons who anticipated the future and acted accordingly. Thus, a person genetically favored and fortunate enough to avoid disease might live much longer than actuarially predicted. Data fail to confirm the existence of such events. For example, adequate data on the number of centenarians have been available in England since 1837; over this time, despite a great change in average life expectancy, there has been no detectable change in the number of people living longer than 100 years or in the maximum age of persons dying in a given year.[1]

The *Guinness Book of World Records* notes that the correlation between the claimed density of centenarians in a country and its regional illiteracy rate is 0.83. In Sweden, where careful investigations of centenarians are carried out, not one has yet exceeded 110 years of age. The greatest authenticated age in the world was recorded in Japan — 114 years.[2] Approximately one in 10,000 persons in developed countries lives beyond the age of 100. Moreover, inspection of the "tail" of the human survival curve demonstrates the falloff expected from a normal distribution, rather than the emergence of a few persons with notably long life spans.[3] There has been no satisfactory documentation of any society with exceptional longevity.[4]

Several theoretical explanations of the finite life span have been presented. At the cellular level, Hayflick and others have argued extensively for a finite number of cell doublings in the life span of a species. The number of doublings of human fibroblasts is approximately 50 (ref. 5); before reaching this point, subcultivation of cells proceeds in an active and youthful way. However, over a short period after the 50th subcultivation, the cells first fail to grow and then die, although there has been no change in the nutrients or other conditions of the culture medium. The number of doublings is species specific, and long-lived species have more doublings than do short-lived species.[6]

At the level of the organism, life may be defined as internal homeostasis. The internal milieu is adjusted within strict limits by compensating mechanisms in many organs, including heart, lungs, kidneys, and liver. In young adult life, the functional capacity of human organs is four to 10 times that required to sustain life. The existence of "organ reserve" enables the stressed organism to restore homeostasis when it is deranged by external threat. Measurement of organ reserve over time shows an almost linear decline beginning at about the age of 30.[7] As organ reserve

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decreases, so does the ability to restore homeostasis, and eventually even the smallest perturbation prevents homeostasis from being restored. The inevitable result is natural death, even without disease. Although a disease process may appear to be the cause of death, the actual cause is loss of the organism's ability to maintain homeostasis. Any small perturbation, without coexistent organ reserve, would have the same fatal result. Observations since those of Gompertz demonstrate an exponential increase in mortality rate after the age of 30; the rate doubles every eight years.[9] The best mathematical models[9] relate the linear decline in organ function to the exponential mortality rate. Obviously, an exponentially increasing mortality rate ensures a finite life span.

The Average Length of Life Is Increasing

The average length of life in the United States has increased from approximately 47 years at the turn of the century to 73 years today, an increase of 26 years (Fig. 1). Life expectancy for white women is now 77 years and for white men 70 years. A steady rise in life expectancy in the early years of this century changed to a relative plateau after 1950, but the increase has resumed in recent years.[10] Such data form the basis for predictions that more people will live beyond the age of 65 and for projections of medical facilities likely to be required in the future.

A more critical look at these data, however, demonstrates that they reflect progress in the elimination of premature death, particularly neonatal mortality. For persons 40 years of age and older, life expectancy has increased relatively little; for those 75 years old the increase is barely perceptible. Figure 1 presents a largely unnoticed paradox: if these lines are extrapolated into the future, at some point in the 21st century the average life expectancy as projected at birth will exceed average age of death as projected at age 75.

A white woman aged 70 may now expect to live 14 years longer (on the average), and a white man of the same age 11 years. Present differences in life expectancy between sexes and races become much smaller as the age on which the analysis is based rises. Racial minorities and men are more subject to premature death.

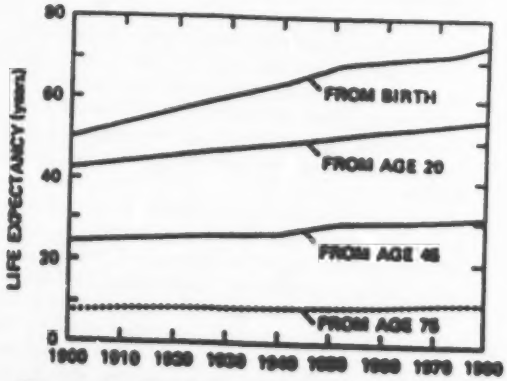

Figure 1. Life Expectancy Trends in the United States. Life expectancy at birth has increased by 26 years in this century, and expectancy at 75 (broken line) by only three years. The slope decreases as the life span is neared.

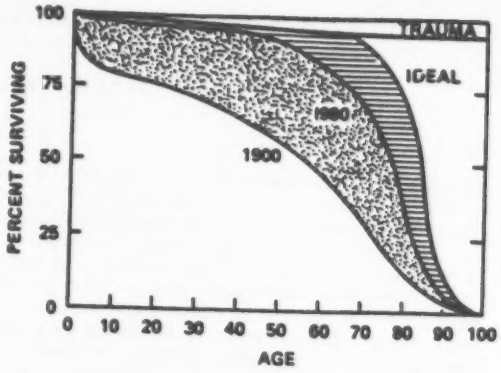

Figure 2. The Increasingly Rectangular Survival Curve. About 80 per cent (stippled area) of the difference between the 1900 curve and the ideal curve (stippled area plus hatched area) had been eliminated by 1980. Trauma is now the dominant cause of death in early life.

The shape of the survival curve provides additional insights. In antiquity, as in many species of animals now, death was almost a random event: an organism succumbs to an intercurrent problem before reaching the life span usual for members of the species. In 1900, the survival curve in the United States was not very different from this situation. However, sequential survival curves throughout this century show progressive "rectangularization"[1,8] as the elimination of premature death results in a sharp downslope to the natural life span (Fig. 2). The serial data allow calculation of the position and shape of a survival curve if all premature death were eliminated: an ideally "rectangular" survival curve. If we assume a normal biologic distribution, statistics suggest that under ideal societal conditions mean age at death is not far from 85 years.

The natural limit to the life span can be calculated in several ways. Perhaps the easiest, after study of the rate at which life expectancy at various ages is increasing, is to calculate the point at which the curves intersect (Fig. 3). For example, over the first eight decades of this century average life expectancy from birth increased at the rate of 0.33 year per year of the century, and life expectancy from age 65 has increased by 0.08 year per year. These curves intersect in the year 2009, at a mean age at death of 82.4 years. During the most recent decade, average life expectancy from birth has also increased 0.33 year per year, and life expectancy from age 65 has increased at 0.12 year per year. These curves intersect in the year 2018, at a mean age at death of 85.6 years.

Calculations based on other periods or from other ages converge at similar points. Figure 3 shows intersection at age 85 in the year 2045, a reasonable median projection. In actuality the curves will not be straight but will approach an asymptote; the limit will be approached more slowly, and the attainable average life expectancy will be less than the theoretical estimate. Predictions by the federal government (Fig. 3) make such nonlinear assumptions and suggest that the actual limit may be less than 85 years.

Mortality data describe a biologic distribution, which appears approximately normal in populations of laboratory animals. If the tail of the survival curve remains fixed and the biologic distribution is normal, an age of 100 years is about four standard deviations from the mean, and the standard deviation about four years. Thus, under ideal conditions, 66 per cent of natural deaths would occur in persons 81 to 89 years, and 95 per cent in persons aged 77 to 93 years. With a biologic distribution, the ideal survival curve will never be completely "rectangular," and, if the rate of violent and traumatic death (a category now accounting for more than half of deaths in persons under the age of 40 years[9]) remains roughly constant, there will always be some premature deaths.

Changes in survival curves in this century may be compared with the hypothetical ideal curve in Figure 2. Since 1900, Americans have covered most of the distance to that ideal, in terms of years of life saved: our progress has removed about 80 per cent of the area between the ideal curve and the 1900 curve (if the rate of violent death is disregarded). Moreover, the great change has occurred in the early years of life, with most remaining premature deaths concentrated in the years after age 60.

These changes are dramatic. In 1900 the average citizen died 38 years "prematurely" (short of the theoretical limit), in 1950 17 years, and in 1980 only 12 years. In 1980 white women will die on the average only seven years prematurely. Moreover, violent death accounts for three of the years by which we fall short of the limit. Clearly, the medical and social task of eliminating premature death is largely accomplished.

Chronic Disease Has Superseded Acute Disease

Acute illness has ceased to be the major medical problem in the United States. At the turn of the century, mortality patterns were dominated by acute, usually infectious disease. Tuberculosis, acute rheumatic fever, smallpox, diphtheria, tetanus, poliomyelitis, pneumococcal pneumonia in the young, and similar conditions constituted the principal threats to health.[10] Each of these now causes less than 2 per cent of the health problems that it caused in 1900.[11] Smallpox has been eradicated; polio, almost so. The decline in these diseases can be attributed to a number of factors, including improved nutrition, less crowded living arrangements, water sterilization, immunization, and specific antibiotics.[12] It is important to recognize that chronic diseases have replaced acute illness as major health threats.

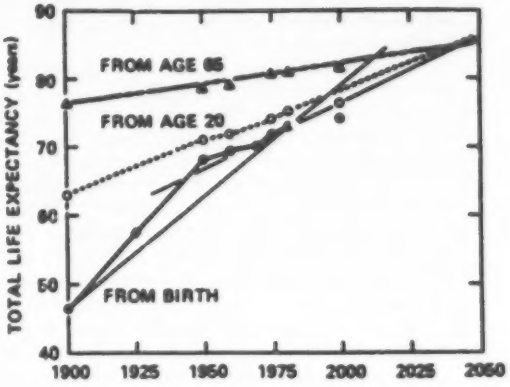

Figure 3. Trends, Limits, and Convergences in Life Expectancy.

Projection of total life expectancy data into the future shows convergence at the ideal average life span, 85 years, in 2045. Spans of 82.6 to 85.6 years can be calculated from projections from different ages (at birth, at age 20, and at age 65) and different years in this century. (Data are from the National Center for Health Statistics [1977][13]; values indicated by triangle and circles for the year 2000 are estimates from the Office of the Actuary.)

Chronic illness now is responsible for more than 80 per cent of all deaths and for an even higher fraction of cases of total disability.[9] Arteriosclerosis (including coronary-artery disease and stroke), arthritis, adult-onset diabetes, chronic obstructive pulmonary disease (including emphysema), cancer, and cirrhosis represent the overwhelming majority of our health problems. They are widespread conditions that originate in early life and develop insidiously; the probability of their occurrence increases with age. They can be considered, broadly, as problems of accelerated loss of organ reserve. Generally, they develop slowly and asymptomatically below a clinical threshold, at which the process becomes clinically evident, progresses, and often culminates in death or disability.

Thus, the early arteriosclerotic plaque does not materially impede circulation, but gradually the probability of an acute thrombotic event or insidious vascular insufficiency increases. The osteoarthritic bone spur is evident on x-ray films for many years before pain or disability is noted in the affected joint. Glucose tolerance decreases gradually until sugar is excreted in the urine of the diabetic. The patient with emphysema has accelerated loss of pulmonary reserve. The probability of development of neoplasms increases with age.

Disability and lowered quality of life due to the most prevalent chronic diseases are thus inescapably linked with eventual mortality. These chronic diseases

blood pressure are examples of such variables. Exercise, weight control, and diet are some of the common modifying factors.

The modifiability, or "plasticity," of aging has been demonstrated in studies in which performance can be bettered despite age, within surprisingly broad limits. This important phenomenon has been largely unnoticed partly because of an emphasis on average rather than individual performance and partly because disparate disciplines are involved. Average declines in variables in aging can hide remarkable individual variation. The marathon runner is an example (Fig. 4). A runner in middle life who completes a marathon in 3½ hours is in the 99th percentile for this endeavor; yet not until age 73 would that time set an age-group record. These marathon data are important in that they show the maximum rather than the average performance, but here too there is a linear decline in performance between age 30 and 70. Still, the age-related decrement in maximal performance is only 1 per cent per year. Variation between healthy persons of the same age is far greater than the variation due to age; age is a relatively unimportant variable, and training in marathon running is clearly more important than age.

Similar observations on increased variation between individuals with age and on modifiability with training, even after age 70, have been made for intelligence testing,[17,18] social interaction,[19] health after exercise,[20] and memory.[21] Certain data indicate improvement with age, against the gradient of linear decline, for some persons. An inference is that personal choice is important — one can choose not to age rapidly in certain faculties, within broad biologic limits.

Such considerations suggest that research strategy toward aging be fundamentally shifted. Analysis of variation, not of the mean values, becomes crucial. Indeed, one can argue that the number of studies showing that the mean of every function declines steadily with age is already sufficient. Research now requires measurement of standard deviation between

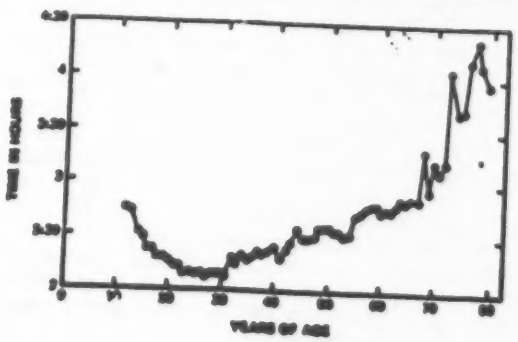

Figure 4. World Marathon Records for Men.
Note the slow but linear decline in maximum performance between the age of 30 and 70.

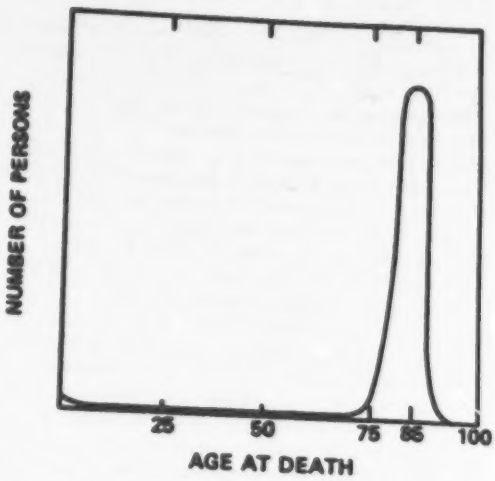

Figure 5. Mortality According to Age, in the Absence of Premature Death.
The morbidity curve is made rectangular, and the period of morbidity compressed between the point of the end of adult vigor and the point of natural death.

individuals, not of standard error between populations or between chronological ages.

A new three-stage research strategy may be urged: measure the variability of a marker of aging (e.g., oxygen uptake, satisfaction as assessed by questionnaire, or intelligence as measured by IQ test) at a given chronological age; determine retrospectively the differences between the individual who has aged more rapidly and the one who has aged more slowly in that marker — hypothetically, such differences may be expected to correlate with the individual's practice in self-maintenance and to be confounded by self-selection; and design prospective intervention studies to explore causality.

At the top of the list of nationally important health-research subjects must be the ability to postpone chronic illness, to maintain vigor, and to slow social and psychologic involution. We must know for certain whether change is possible and how to accomplish it best. Personal autonomy has been emphasized above as a probable final common pathway to improved health. This emphasis is meant broadly, since clearly the collective efforts of individuals are required for removal of environmental hazards and the development of incentives to encourage rather than discourage the exercise of personal choice. We know relatively little about the specific relations between social changes and personal decisions, and much information in great depth is needed.

SUMMARY

I have presented a model for national health that foresees continued decline in premature death and emergence of a pattern of natural death at the end

of a natural life span. Present approaches to social interaction, promotion of health, and personal autonomy may postpone many of the phenomena usually associated with aging. The rectangularization of the survival curve may be followed by rectangularization of the morbidity curve and by compression of morbidity (Fig. 5).

These considerations suggest a radically different view of the life span and of society, in which life is physically, emotionally, and intellectually vigorous until shortly before its close, when, like the marvelous one-hoss-shay,[22] everything comes apart at once and repair is impossible. Such a life approaches the intuitive ideal of many and confounds the dread of others for the opposite model, that of evermore lingering death. Paradoxically, predictability of death may prove soothing.

Since maintenance of organ capacity appears to require practice on the part of the individual, the implications for the societal role are as fundamentally different as are the two models. Indeed, the choice of societal postures toward the aged is likely to prove self-fulfilling. The older person requires opportunity for expression and experience and autonomy and accomplishment, not support and care and feeding and sympathy. High-level medical technology applied at the end of a natural life span epitomizes the absurd. The hospice becomes more attractive than the hospital. Human interaction, rather than respirators and dialysis and other mechanical support for failing organs, is indicated at the time of the "terminal drop." Anguish arising from the inescapability of personal choice and the inability to avoid personal consequences may become a problem for many. For others, exhilaration may come from recognition that the goal of a vigorous long life may be an attainable one.

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References

1. Comfort A. The biology of senescence. 3d ed. New York: Elsevier Press, 1979:81-6.
2. McWhirter N. Guinness book of world records. 17th ed. New York: Bantam Books, 1980.
3. Greenwood M, Irwin JO. The biostatistics of senility. Hum Biol. 1939; 11:1-23.
4. Massey RB, Forman SH. Longevity and age exaggeration in Vilcabamba, Ecuador. J Gerontol. 1979; 34:94-8.
5. Hayflick L. Aging under glass. Exp Gerontol. 1970; 5:291-303.
6. *Idem.* The cellular basis for biological aging. In: Finch LE, Hayflick L, eds. Handbook of the biology of aging. New York: Van Nostrand Reinhold, 1977:159-86.
7. Shock NW. Mortality and measurement of aging. In: Strehler BL, Ebert JD, Glass HB, Shock NW, eds. The biology of aging. Washington, D.C.: American Institute of Biological Sciences, 1960:14-29.
8. Upton AC. Pathology. In: Finch LE, Hayflick L, eds. Handbook of the biology of aging. New York: Van Nostrand Reinhold, 1977:513-35.
9. Strehler BL, Mildvan AS. General theory of mortality and aging. Science. 1960; 132:14-21.
10. National Center for Health Statistics. Health in the United States, 1978. Hyattsville, Md.: National Center for Health Statistics, 1978. (DHEW publication no. (PHS)78-1232).
11. Fries JF, Ehrlich GE, eds. Prognosis: contemporary outcomes of disease. Bowie, Md.: Charles Press, 1980. (in press).
12. McKeown T. The role of medicine: dream, mirage, or nemesis. 2d edition. Princeton, N.J.: Princeton University Press, 1979.
13. Stern MP. The recent decline in ischemic heart disease mortality. Ann Intern Med. 1979; 91:630-40.
14. Walker WJ. Changing United States life-style and declining vascular mortality: cause or coincidence? N Engl J Med. 1977; 297:163-5.
15. Farquhar JW. The American way of life need not be hazardous to your health. New York: WW Norton, 1978.
16. Vickery DM, Fries JF. Take care of yourself: a consumer's guide to medical care. Reading, Mass.: Addison-Wesley, 1976.
17. Baltes PB, Schaie KW. On the plasticity of intelligence in adulthood and old age: where Horn and Donaldson fail. Am Psychol. 1976; 31:720-5.
18. Plemons JK, Willis SL, Baltes PB. Modifiability of fluid intelligence in aging: a short-term longitudinal training approach. J Gerontol. 1978; 33:224-31.
19. Rodin J, Langer EJ. Long-term effects of a control-relevant intervention with the institutionalized aged. J Pers Soc Psychol. 1977; 35:897-902.
20. Paffenbarger RS Jr, Wing AL, Hyde RT. Physical activity as an index of heart attack risk in college alumni. Am J Epidemiol. 1978; 108:161-75.
21. Langer EJ, Rodin J, Beck P, Weinman C, Spitzer L. Environmental determinants of memory improvement in late adulthood. J Pers Soc Psychol. 1979; 37:2003-13.
22. Holmes OW. The deacon's masterpiece: or the wonderful "one-hoss-shay." In: The autocrat of the breakfast table. Cambridge, Mass.: Houghton Mifflin, 1881.

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The Biology of Aging—An Overview

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ABSTRACT

From an evolutionary point of view, it is difficult to envision why aging has evolved. There is the confound of aging versus mortality and aging versus disease. The relationship of the disease process to aging and the basis of the vulnerability to disease that aging brings remains obscure. Although environmental factors can regulate or modify mortality rates, mortality is not aging. Environmental factors can in some cases modify the process of aging as well. The maximum life span has remained constant at about 110 years throughout recorded history. Variability in life span within a species is much less than among different species. Most gerontologists agree that life span is regulated intrinsically. Human functional capacity diminishes with age, beginning at about age 30. Mortality from various diseases increases with age over the same time period. Therefore, if death does not occur in old age from the most common cause for the age group, it will occur shortly thereafter from the second, third, or fourth most common cause. There are changes in cells and tissues which underlie the increased vulnerability to disease and mortality. Theories of aging discussed are stochastic (somatic mutation theory and error theory) and developmental genetic (neuroendocrine theories, intrinsic mutagenesis, immunological theory, free radical theory).

Aging is a nearly universal phenomenon in biology that has intrigued scientists throughout recorded history. Despite this interest, however, very little is known about the biology of aging. Historically and even in the modern era, gerontology has attracted more than its share of scientists of questionable talent, motives, and integrity. As a result, outstanding investigators who have been interested in aging have shied away from research in this important area.

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The absence of a large number of scientists working in this field is not the only reason for the lack of real progress in gerontology. The problem itself is intrinsically difficult. The myriad of different aging scenarios has thoroughly obscured any unifying principles. For example, some but not all processes can be considered to age. Aging in the lower metazoa is confusing and discussions tend to focus on semantics rather than facts. A good general definition of biologic aging is not available. From an evolutionary point of view, it is difficult to envision why aging has evolved. If one assumes that it is longevity that has evolved, even then, the evolution of post-productive longevity remains unexplained. Furthermore, most animals in the wild never achieve anything near their maximum life span because of death due to predators and other accidental causes. Finally there is the confusion surrounding aging versus mortality and aging versus disease. Mortality is usually considered the endpoint of aging yet it is a very poor endpoint. Death is an accidental event which may or may not occur from causes related to aging. Vulnerability to certain diseases seems to be age-associated and some of these diseases cause death. The relationship of the disease process to aging and the basis of the vulnerability to disease that aging brings remain obscure.

Clearly, a comparison of various populations with widely differing degrees of sophistication in health care reveals major differences in average life span (6). These differences are due primarily to a reduction in infant mortality and in deaths of young individuals. Thus life expectancy can be modified by controlling disease and other life-threatening events. However the maximum life span appears to have remained constant at about 110 years throughout recorded history.

The formal general questions which gerontology asks are: "What is the mechanism(s) by which life span is determined?" "How is the process of aging regulated?" "What are the changes underlying the increased vulnerability to certain diseases with aging?" This chapter represents an attempt to present an overview of the field of biologic gerontology rather than a detailed review. The purpose is to provide a framework of fundamentals for interpreting the information presented in the following chapters within the context of the biology of aging.

Characteristics of Aging

Some of the salient general characteristics of aging are the following: 1) There is an increased mortality with age (28). 2) There are changes in the chemical composition of the body with age. This has been studied mostly in higher vertebrates and includes, for example, a decrease in lean body mass and an increase in fat. Also characteristic are increases in lipofuscin pigment in certain tissues and increased cross-linking in matrix molecules

(28). 3) There is a broad spectrum of progressive deteriorative changes (27). 4) Perhaps the hallmark of aging is the reduced ability of the older individual to respond adaptively to environmental change (1). Thus, for example, it is not the resting pulse rate or the fasting serum glucose that changes so much with aging, but rather the ability of the pulse rate and the serum glucose to return to normal after exercise or a meal high in carbohydrates. Finally, there is a well-documented but poorly understood increased vulnerability to disease with age (27).

There is a catalog available of changes in human functional capacity with age (27). Such things as glomerular filtration rate, vital capacity, and other measures of system functional capacity decline linearly from about age 30 years on. Mortality from various diseases, however, increases exponentially with age over the same time period. This exponential increase appears to occur from a large number of diseases, so that if one does not die in old age from the most common cause of death for his age group, one will die shortly thereafter from the second, third or fourth most common cause of death for his age group. From these data, demographers have calculated that if all atherosclerosis and neoplasia were eliminated as causes of death in the population, this would only add about 10 years to the average life span. This emphasizes the point that there are changes in cells and tissues which underlie the increased vulnerability to disease and mortality.

Theories of Aging

Despite the large number of aging changes that have been catalogued for humans and other species, there is as yet no adequate theory of biological aging. There is insufficient fundamental information to allow formulation of the principles of this subscience within biology. On the other hand, there is certainly no shortage of theories. One of the problems in gerontology is the ease and frequency with which new theories have appeared. Rather than delineating each theory, it seems more useful to discuss the two major classes of aging theories and several examples of each. The reader should be aware that this classification is not precise and that the theories are not mutually exclusive.

Stochastic Theories

The first class is comprised of the stochastic theories of aging, which depend on the accumulation of environmental insults that eventually reaches a level incompatible with life. An example of this class of theory is the somatic mutation theory (10), which had its greatest impetus in the years following World War II and the flurry of research in radiation biology

Somatic Mutation Theory

The somatic mutation theory states that mutations (genetic damage presumably resulting from background radiation of various types) will produce functional failure eventually resulting in death. The major experimental support for this theory derived from the well-documented observation that exposure to ionizing radiation shortens life span. It must be remembered, however, that there is no information whatsoever that relates radiation-induced life span shortening to the normal process of aging. There is little, if any, evidence in support of this theory other than some limited studies of Curtis and Miller (8) which show an increase in chromosome abnormalities in mouse liver as a function of age. On the other hand, there are experiments which argue directly against his theory. For example, if the theory were correct, inbred animals would have a longer life span than outbred ones since they are homozygous at most genetic loci. In fact the reverse is true. Secondly, the calculated mutation rate is much too low to produce the overall changes associated with aging. Most compelling, however, are studies on the wasp *Habrobracon* (7). These animals can be maintained in the haploid or diploid condition. One would expect haploid animals to be significantly more radiation-sensitive than diploid animals since they have two copies of the genetic information at each locus. Experimentally this is true. However, unirradiated animals, haploid or diploid, have the same life span. This observation is very difficult to reconcile with the somatic mutation theory of aging.

Error Theory

A second example of a stochastic theory is the error theory (21), which states that protein molecules containing errors will eventually be turned over and replaced by correct copies. These error-containing molecules do not accumulate. However, if an erroneously synthesized protein(s) is a protein involved in the synthesis of the genetic apparatus, then this original error will produce faulty molecules in the genetic apparatus which will then produce more error-containing proteins. Orgel envisioned an eventual "error catastrophe" that would cause the death of the individual. This has been a very appealing theory, especially because of its testability. Although aberrant proteins are found with increased frequency in old cells and tissues, these are probably due to variations in the rate or extent of post-translational modifications. There is as yet no documented example of erroneously synthesized proteins accumulating in old tissues and certainly no evidence for an error catastrophe (26).

Developmental-Genetic Theories

This class of theories considers the process of aging as a part of a continuum with the process of development and that this process is genetically controlled and perhaps "programmed." There are many variations on this general approach, four of which are considered below.

Neuroendocrine Theories

The neuroendocrine theories (11) include theories in which aging is viewed as the result of functional decrements in neurons and their associated hormones. An important version of this depends on the hypothalamic-pituitary axis as the master time-keeper of the body. Functional changes in this important system are accompanied by a decline in functional capacity in all systems. This is a very popular approach to aging and an enormous amount of data has accumulated relating aging of the organism to loss of responsiveness of the neuroendocrine tissues to various signals. In some cases there is a loss of receptors, while in other cases the changes seem to be postreceptor modifications.

The neuroendocrine approach to the study of aging seems tenable in higher vertebrates, where a good case can be made for the importance of the neuroendocrine system as a super timekeeper. However, it is unlikely that this theory is universally applicable, since obviously not all organisms that age have highly developed neuroendocrine systems. Also, as with other theories, the formal possibility exists that the differences we observe are effects of aging rather than causes. Of course this is true for all the theories discussed here.

Intrinsic Mutagenesis

A second developmental-genetic theory is referred to as "intrinsic mutagenesis." This theory was first proposed by Burnet (2) and is an attempt to reconcile stochastic theories with the obvious genetic regulation of maximum life span. Burnet suggests that each species is endowed with a specific genetic constitution that regulates the fidelity of the genetic material and its replication. The degree of fidelity regulates the rate of appearance of mutations or errors and thus the life span. Alternatively, one can envision a case in which new "fidelity regulators" appear at different stages in the life history. These have diminished capacity, thus allowing an increase in mutational events. Although there is no substantial evidence to support this theory, it is attractive and various methods of mutation analysis are being used to test its validity.

There is some controversial evidence for decrements in DNA excision repair with species maximal life span (14). There is also evidence that the fidelity of DNA polymerase may diminish with age (17, 28), but this is controversial as well.

Immunologic Theory

A third developmental-genetic theory is the immunologic theory of aging. This theory, as proposed by Walford (32), is based on two observa-

tions: 1) that the functional capacity of the immune system declines with age, as seen in T cell function, most evident by the decline in resistance to infectious disease in older individuals; and 2) that the fidelity of the immune system declines with age as evidenced by the striking age-associated increase in autoimmune disease. Walford has related these immune system changes to the major histocompatibility complex of genes in rats and mice. Congenic animals which differ only at the major histocompatibility locus appear to have different maximal life spans, suggesting that life span is regulated (in part at least) by this locus. Interestingly, this locus also regulates superoxide dismutase and mixed function oxidase levels, a finding which relates the immunologic theory of aging to the free radical theory of aging (see below). As with the autoimmune theory, the immunologic theory is very attractive but lacks universality, since many organisms which lack a complex immune system show very similar age changes to those of higher animals. Further research will help to interpret the significance of this theory.

Free Radical Theory

The free radical theory of aging usually attributed to Harman (13), proposes that most aging changes are due to free radical damage. Free radicals are highly chemically reactive species which are generated in single electron transfer reactions in metabolism. These free radicals are rapidly destroyed by protective enzyme systems. Presumably, however, there is enough "leakage" of these molecules to allow damage from them to occur and accumulate. This theory might properly be included under the general rubric of stochastic theories. I have included it here, however, because aspects of the free radical theory relate to various genetic and developmental processes. For example, the German physiologist Rubner (23) determined that for a series of mammals, the bigger the animal, the lower its metabolic rate. The adaptive significance of this is that as animals get larger, there is a disproportionate change in their surface-to-volume ratio, that results in a reduction in the animal's ability to dissipate the heat produced in metabolic reactions. Thus a high metabolic rate could cause serious overheating in a large animal.

Sacher and Duffy (24) and others later on observed that for a limited group of mammals, life span was more or less a direct function of body size. (Actually, the relationship is most precise if body size is modified by a factor for brain size.) Bigger homeotherms, by and large, live longer suggesting an inverse relationship between metabolic rate and life span. Thus, investigators have speculated that each species is endowed for its lifetime with a given number of calories to burn. Those species that burn them rapidly live a short time; burn them more slowly and life span is extended. This notion as stated is unlikely to be correct, since it implies that active individuals would have a shorter life span than ordinary ones. There is no evidence to support this. However, since metabolic rate is related directly to free radical generation and inversely to life span, it is reasonable to suggest that the rate of free radical production is in some way related to life span determination. Evidence to support this view is only circumstantial. For example, superoxide dismutase specific activity in liver appears to be directly proportional to species maximum life span (31). Similarly, preparations point to the observation made for several species that caloric restriction can increase mean and maximal life span by about 50%. This remains the only method known for extending the life span of warm-blooded animals and has evoked a great deal of interest. On the other hand, Masoro (19) has recently shown that the specific metabolic rate of calorically restricted rats appears to be the same as those fed ad libitum. This area of investigation remains a promising one for gerontology.

Fundamental Questions on Aging

A fundamental question in aging research is whether aging is regulated intrinsically or by environmental factors. There is no question that environmental factors can regulate or modify mortality rates. In some cases, environmental factors are recognized to modify the process of aging as well. For example, the rate of skin aging (as we understand it) is clearly accelerated by sun exposure. Overall, however, most gerontologists would agree that life span is regulated intrinsically. The major evidence in support of this view is that maximum life span is a species characteristic. Variability in life span within a species is much less than among different species. This implies genetic determination of maximum life span and thus overall intrinsic control. Also there are genetically regulated diseases of precocious aging such as Hutchinson-Gilford syndrome, Werner's syndrome, Down's syndrome, and others. In these individuals, many of the commonly recognized aging changes occur at an accelerated rate.

Accepting as a working hypothesis that genetic mechanisms do operate in the aging process, one can then ask the second question, whether aging is characteristic of individual cells or only of the integrated functioning among cells. To examine this question, we must go back in history. The 19th century embryologist Weismann, for example, appears to be the first biologist to emphasize the distinction between somatic cells, which senesce, and germ cells, which do not. He proposed that aging was the price cells paid for their specialized function. He was also probably the first to suggest that the failure of somatic cells to replicate indefinitely limited the life span of the individual. This view was brought into serious question by the experiments of Alexis Carrel and co-workers at the Rockefeller University who, beginning with experiments in 1911, were able to keep chick heart cells proliferating continuously in culture until 1945, when Carrel retired and terminated the experiment (3, 4, 5). Since 34 years is longer than the life span of the chicken, this was considered compelling evidence

that individual cells were immortal. This work and the concepts emanating from it dominated biology in general and especially gerontology for the first half of this century. This view was that aging was not a characteristic of cells and that isolated cells were immortal; it was the tissues that were involved in the aging process.

In the late 1950s and 1960s, Hayflick and Moorhead were developing methods to detect latent human tumor viruses. Their approach required that normal human cells be grown in tissue culture. During the course of this work, they noticed that a period of rapid and vigorous cellular proliferation was consistently followed by a decline in proliferative activity during which the cells acquired characteristic enrichment of senescent cells in vivo, and finally the death of the culture. Swim and Parker (29) and perhaps others had made this same observation previously, but Hayflick and Moorhead had the extraordinary insight to recognize it as a process of senescence in culture. Thus they proposed a new view, namely that aging was a cellular as well as an organismic phenomenon and that perhaps the loss in functional capacity of the aging individual reflected the accumulation of loss of critical functional capacities of the individual cells. This interpretation has changed our understanding of the process of aging and the direction and interpretation of aging research (15, 16).

Repeated attempts to verify and repeat the early experiments of Carrel have been uniformly unsuccessful (12) and there is no documented explanation for his finding. Generally the opinion among scientists is that there was unnoticed introduction of fresh young cells into the culture at regular intervals.

In other experiments on human cells, Hayflick and Moorhead were able to show that a deleterious change in the cells was not dependent on environmental influences but instead was intrinsic to the cells. Hayflick also addressed the generality of this phenomenon and pointed out that unless transformation occurred at some point in the life history of the cells, senescence always resulted. Transformation can occur at any point in the life history and if transformation occurs, the cells acquire a constellation of abnormal characteristics which include chromosomal abnormalities and an indefinite life span, properties of tumor cells.

Cell Aging and Aging of the Individual

Finally we might examine the relationship between the cellular aging phenomenon in culture and aging of the individual. No simple relationship is apparent. Clearly there is no reason to believe that the life span of humans is limited directly by the replicative capacity of mesenchymal cells which grow in culture. However, it is not life span but rather the process of aging that is being studied. By any definition of aging, normal cells in culture age. There is a major failure in functional capacity. In this case proliferative capacity, and the cells show changes similar to changes in vivo. Further evidence of the relationship to the fact that the replicative life span of cells in culture is inversely related to the age of the donor (18, 25) and directly related to the maximum life span of the species (22). Similarly, cells from individuals with genetic diseases of precocious aging often have a much reduced replicative life span in culture (9). Clearly, aging changes in vivo are expressed in cell culture and the mechanisms underlying the deleterious changes can be studied under controlled environmental conditions.

A great deal of research is being done now on cellular and molecular aspects of aging. Careful dissection of changes that occur at this level will be important to our understanding of aging. I believe this approach will result in very exciting developments and will provide insight into the control of both the quality of life and life span.

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REFERENCES

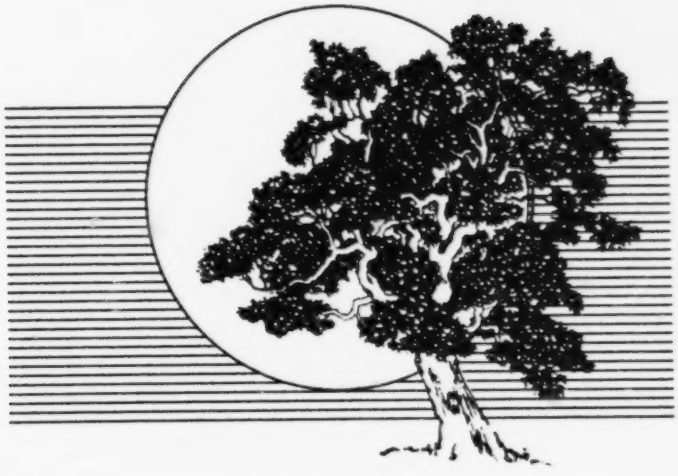
1. Adelman RC. Hormone interaction during aging. In: Schneider EF (ed.), Biological Mechanisms in Aging. U.S. Department of Health and Human Services, Washington, D.C., 1980:689.
2. Bernet M. Intrinsic Mutagenesis: A Genetic Approach to Aging. New York, John Wiley & Sons, 1974.
3. Carrel A. On the permanent life of tissues outside the organism. J Exp Med 1912; 15:516-528.
4. Carrel A. Present condition of a strain of connective tissue twenty-eight months old. J Exp Med 1916; 23:1-7.
5. Carrel A, Burrows MT. On the physicochemical regulation of the growth of tissues. J Exp Med, 13:562-570.
6. Comfort A. The Biology of Senescence. 3rd edition. New York, Elsevier, 1979.
7. Clark AM, Rubin MM. The modification by a limitation of the life span of haploid and diploid Hydra lines. Biol Bull 1961; 121:241-253.
8. Curtis HJ, Miller E. Chromosome aberrations in liver cells of guinea pigs. J Gerontol, 1971; 26:292-293.
9. Epstein CJ, Martin GM, Schultz AL, Motulsky AG. Werner's syndrome—a review of its symptomatology, natural history, pathologic features, genetics and relationship to the natural aging process. Medicine (Balt) 1966; 45:177-221.
10. Failla G. The aging process and carcinogenesis. Ann NY Acad Sci 1958; 71:1124-1133.
11. Finch CE, Landfield PW. Hormonal control and autonomic functions in aging: mammals. In: Finch CE, Schneider EF (eds.), Handbook of the Biology of Aging. New York, Van Nostrand Rheinhold, 1980:567-594.
12. Gey GO, Svoboda M, Pearl M, Bang FB. Long term growth of children tissues under a collagen substrate. Exp Cell Res 1954; 86:63-71.

13. Harman D. The aging process. Proc Natl Acad Sci [USA] 1981, 78:7124–7128.
14. Hart RW, Setlow RB. Proc Natl Acad Sci [USA] 1974, 71:2169–2173.
15. Hayflick L. The limited in vitro lifetime of human diploid cell strains. Exp Cell Res 1965, 37:614–636.
16. Hayflick L, Moorhead PS. The serial cultivation of human diploid cell strains. Exp Cell Res 1961, 25:585–621.
17. Linn S, Kuroi M, Holliday R. Decreased fidelity of DNA polymerase activity isolated from aging human fibroblasts. Proc Natl Acad Sci [USA] 1979, 13:2018–2022.
18. Martin GM, Sprague CA, Epstein CJ. Replicative lifespan of cultivated human cells. Effects of donage, donor, and genotype. Lab Invest 1970, 23:86–92.
19. Maynard EJ. Metabolism. In: Finch CE, Schneider EL (eds.), Handbook of the Biology of Aging. New York, Van Nostrand Rheinhold, 1985:549–556.
20. Murray V, Holliday R. Increased error frequency of DNA polymerase from senescent human fibroblasts. J Molec Biol 1981, 146:55–70.
21. Orgel LE. The maintenance of the accuracy of protein synthesis and its relevance to aging. Proc Natl Acad Sci [USA] 1963, 49:517–521.
22. Ribbons D. Evidence for a relationship between longevity of mammalian species and lifespans of normal fibroblasts in vitro and erythrocytes in vivo. Proc Natl Acad Sci [USA] 1981, 78:3256–3260.
23. Rohrer M. Die gesetze der lebensdauer und seine beziehungen zum wachstum und stoffwechsel. Lehmann, Oldenbourg, 1908.
24. Sacher GA, Duffy PH. Genetic relation of life span to metabolic rate for inbred mouse strains and their hybrids. Fed Proc 1979, 38:169–182.
25. Schneider EL, Mitsui Y. The relationship between in vitro cellular aging and in vivo human age. Proc Natl Acad Sci [USA] 1976, 73:3584–3588.
26. Shanes HK, Rothstein M. Altered enzymes in aged fibroblasts: are results from environmental changes in the enzyme. Proc Natl Acad Sci [USA] 1980, 77:6585–6588.
27. Shock NW. Longitudinal studies of aging in humans. In: Finch CE, Schneider EL (eds.), Handbook of the Biology of Aging. New York, Van Nostrand Rheinhold, 1985:721–740.
28. Strehler BL. Time, Cells and Aging, 2nd edition. New York, Academic Press, 1977.
29. Swim HE, Parker RF. Culture characteristics of human fibroblasts propagated serially. Am J Hygiene 1957, 66:235–243.
30. Szilard L. On the nature of the aging process. Proc Natl Acad Sci [USA] 1959, 45:35–45.
31. Tokunaga JM, Ono T, Cutler RG. Supermodel dimensions: Correlation with life span and specific metabolic rate in primate species. Proc Natl Acad Sci [USA] 1981, 77:2777–2781.
32. Walford R. The Immunologic Theory of Aging. Copenhagen, Munksgaard, 1969.

GERIATRIC TRAINING CURRICULUM FOR PUBLIC HEALTH PROFESSIONALS

PSYCHOSOCIAL ISSUES AFFECTING OLDER ADULTS AND THEIR CAREGIVERS

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES • Public Health Service • Health Resources and Services Administration



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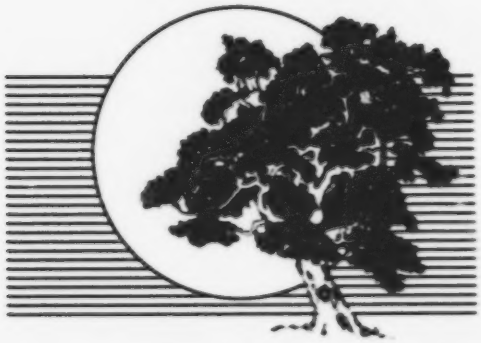

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The Geriatric Training Curriculum for Public Health Professionals represents the contributions of many individuals, whose efforts shaped various stages of the project and enriched the final product. We genuinely appreciate the expertise provided by these persons, and wish to acknowledge their unique contributions.

Mr. Ronald Merrill, Government Project Officer for the Bureau of Health Professions, recognized the need for public health professionals to acquire the relevant resources, skills, and attitudes that would enable them to serve as repositories of geriatric information for their agencies and local communities. In addition to envisioning the original scope, process, and content of a modular geriatric training institute, Mr. Merrill patiently worked with the project staff and Advisory Panel through the long process of conducting a needs assessment, selecting topics, designing a draft curriculum, pilot testing, revising the draft for review by content experts, and producing a final document. His sound advice and high level of commitment have been greatly appreciated.

The Advisory Panel, chaired by Dr. Phil Weiler, assisted in the design of the needs assessment, as well as the selection of topics for inclusion in the curriculum. Several of the members of the Advisory Panel served as content experts for the review of draft materials. Their willingness to share their insights, knowledge, and time guided the evolution of this project and contributed a keen sense of direction to the effort.

In addition, we are appreciative of the many professionals and staff in public health departments, as well as aging-network organization and agencies, whose observations during the needs assessment phase of this project helped us refine an operational strategy for curriculum development.

Special thanks are due the South Texas Geriatric Education Center (STGEC) at the University of Texas Health Science Center at San Antonio (UTHSCSA) under whose auspices the pilot test was conducted. We are indebted to Dr. Michele J. Saunders (STGEC Project Director and Director of Education), Ms. Ruth A. Freiburger (STGEC Education Specialist), and Ms. Carolyn E. Marshall (STGEC Community Education Coordinator) for their enthusiastic support, sage advise, and administrative skills in organizing the pilot test, coordinating the myriad details, and identifying both faculty to serve as trainers during the pilot test and potential participants. Dr. Saunders, Ms. Freiburger, and Ms. Marshall also reviewed and critiqued the five training modules, and served as facilitators for several sessions of the Geriatric Training Institute (GTI) for Public Health Professionals. We also wish to thank Dr. Robert Oseasohn, Dr. Mary Ann Matteson, Dr. David Warner, and Dr. Myron Shank for facilitating sessions of the pilot test. The guidance provided by members of the GTI faculty, and the evaluations submitted by participants, resulted in revisions that have strengthened the final product.

The magnitude of a project of this nature requires the energies and talents of many individuals oriented toward a common goal. The Technical Resources, Inc. (TRI) project staff contributed the combined expertise of diverse disciplines to generate a comprehensive, practical training vehicle. As co-authors of several modules, Ms. Rosalind P. Brannigan and Mr. Peter J. Pizzolongo provided high-quality substantive content, creative approaches, and unflagging senses of humor integral to both the process and the product.

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Last, but not least, the efforts of Ilyne Miller, administrative assistant, and Suzanne Thomas, contracts administrator, were vital to the smooth performance of this project.

Joel A. Todd
Project Director

Shelli B. Rossman
Project Manager

PREFACE

The Geriatric Training Curriculum for Public Health Professionals was developed by Technical Resources, Inc. (TRI) for the Bureau of Health Professions, Health Resources and Services Administration, Public Health Service, U.S. Department of Health and Human Services. The curriculum has been designed for mid- and senior-level practicing public health professionals, primarily employed in state and local Departments of Public Health. The training materials have been designed to permit these professionals, as well as representatives of aging-related networks, to broaden their understanding of aging and the needs of the older adult so that they may serve as geriatric/gerontologic resources in their communities.

It is the intent of the Bureau and TRI that training sessions conducted with these materials be facilitated by persons who are experienced trainers, as well as content experts in the areas for which they provide training. The curriculum is fully self-contained. It comprises all the written materials and instructions necessary to prepare and conduct this training. In developing these materials, we have anticipated that facilitators will want to present updated information to remain current in the field; we have included suggestions for enhancing the topical relevance of the training pieces, together with suggestions for where to obtain state-of-the-art data.

CURRICULUM MATERIALS

The Geriatric Training Curriculum is comprised of five modules:

- Aging: Demography, Biology, and Epidemiology.
- Psychosocial Issues Affecting Older Adults and Their Caregivers.
- Financing the Health Care of Older Adults.
- Continuum of Care Services for Older Adults.
- Health Promotion for Older Adults.

Each module can be presented independent of the others. However, if the curriculum is utilized in its entirety, it is recommended that the aforementioned order be preserved to permit trainees to incorporate a foundation in concepts basic to an understanding of aging, as well to clarify

their own values, prior to examining the complexities of financing, service delivery, and health promotion/disease prevention issues.

All of the modules have been organized utilizing a seven-section format, as detailed below:

- **Introduction** -- This section presents a brief narrative describing the purpose of the module, together with information for the instructor, including a general description of the organization of the remainder of the module and some generic recommendations for training.

- **Overview** -- This section presents a schematic outline of each training topic, including time required for the didactic session and any interactive exercises, training objectives, listings of relevant overheads and handouts, and indication of special preparation requirements, if any. This section concludes with a bibliography that constitutes the literature referenced within the module.

- **Training Content** -- Presented in two-column format, this section contains the substantive content that serves as a training script, together with strategic guidance for conducting training activities, such as interactive exercises.

- **Overheads** -- This section contains hard copies from which transparencies or slides can be produced. In addition, this section may be reproduced for distribution to trainees as an aid in note taking.

- **Handouts** -- This section contains master copies of the handouts, which have been developed to support and enrich the training experience. Typically, these materials either (i) present current data or (ii) form the basis for interactive training activities.

- **Resources** -- This section presents pertinent information on relevant Federal agencies, private organizations, and media resources from which up-to-date information can be obtained. Facilitators should contact appropriate resources to update the training content for each session, as necessary. The section may also be reproduced in hard copy for distribution to training participants.

- **Readings** -- Each module contains relevant readings that should be reviewed by the facilitator in advance of training. Such materials may be duplicated for distribution to training participants, prior to, or at the conclusion of, the training session.

As a result of a needs assessment that was performed prior to undertaking the design of this material, the curriculum developers were cognizant of public health professionals' interests in the geriatric arena, as well as their concerns that training be pragmatic and practicable, given existing and projected constraints on personnel, time, budget lines, and other crucial resource considerations. The use of these materials will permit the skilled trainer to meet the needs of public health department personnel for aging-related information through pre- or in-service training in any or all

of the topics subsumed by this curriculum. TRI has employed a modular approach to facilitate training sessions of short duration that may be (i) conducted as a series of brief sessions, such as lunchtime seminars, over a period of time, or (ii) merged together to form half- or full-day intensive training workshops. Further, since these materials represent a fully-contained training package, this curriculum can be presented at minimal cost to the sponsoring organization, but at great benefit to public health professionals, who have expressed interest in the selected issues.

DEVELOPMENT OF THE CURRICULUM

The TRI project staff began the research for the curriculum during the Fall of 1987. Early project activities included:

A. Project Start-Up

- Discussions with Ronald B. Merrill, M.H.A., Government Project Officer, to refine the strategy that would serve as the blueprint for action and day-to-day progress. A six-pronged strategy for analysis of geriatric education resources was implemented as detailed below.

B. Phase One: Strategy

- Educational Efforts of Professional Associations and Organizations. Discussions were held with associations that address issues concerning the elderly to ascertain the extent and nature of programs under their domain that could be applied to satisfy the training needs of public health professionals. The following organizations were contacted:

  - American Association of Retired Persons (AARP)
  - American Medical Association (AMA)
  - American Geriatric Society (AGS)
  - Association for Gerontology in Higher Education (AGHE)
  - American Bar Association (ABA)
  - National Council on Aging (NCOA)
  - Gerontological Society of America (GSA)
  - National Senior Citizens Law Center
  - American Public Health Association (APHA)
  - Association of Schools of Public Health
  - Association of State and Territorial Health Officials (ASTHO)
  - National Association of County Health Officials (NACHO)
  - U.S. Conference of Local Health Officers (USCLO).

- Geriatric/Gerontologic Curricula in Schools of Public Health. An assessment of geriatric/gerontologic curricula in schools of public health was undertaken. In 1985, the Association of the Schools of Public Health (ASPH) compiled a comprehensive list of geriatric and gerontologic courses offered at all twenty-three school of public health in the U.S. TRI used this report, *Gerontology Programs and Curricula in U.S. Schools of Public*

Health (Judith H. Magee, June 1985) to analyze training opportunities and content areas offered to students of public health. TRI randomly contacted approximately half of these institutions if they had indicated plans for curriculum expansion during the 1985 ASPH Survey.

Content analysis of the various curricula found that many of the schools of public health have developed discrete courses devoted to health care of the aged, although some schools merely incorporate gerontologic/geriatric material into existing courses.

- Geriatric Education Center Resources. Analysis of the training offered by the Bureau of Health Professions-funded Geriatric Education Centers (GECs), nationwide, permitted TRI to identify a number of existing curriculum modules and/or bibiographic resource listings that were obtained and assessed for relevance to the target training audience. In all, twenty-five curriculum modules were subjected to content analysis, focusing on the target audience for the information, scope of the course offering, topics subsumed, and training techniques employed.

- Review of Literature. Geriatric/gerontologic and education/training literature pertinent to public health professionals was reviewed. The TRI staff performed an exhaustive review of the following journals from 1985 to the present:

  - *American Journal of Public Health*
  - *Geriatrics*
  - *Gerontology and Geriatrics Education*
  - *Health Education*
  - *Health Education Quarterly*
  - *The Gerontologist.*

  In addition, numerous monographs and relevant articles from other health-related journals were also reviewed. A working bibliography of materials reviewed at that time has been included at the end of this section.

- Preliminary Needs Assessment. TRI contacted public health professionals whose agencies serve elderly populations. State, regional, county, and urban health department personnel from jurisdictions in California, Virginia, New York City, and the District of Columbia provided information on their current levels of services, as well as the training needs of departmental staff.

- Staff Development Activities. TRI project staff attended several conferences and symposia, including:

  - The Gerontological Society of America Annual Meeting
  - The Ohio Valley Appalachia Region (OVAR) One-Week Summer Intensive
  - The Amerian Society on Agency Annual Conference.

- Advisory Panel. An advisory group, comprised of national experts representing the professions of public health, medicine, epidemiology, ethics and law, health education, health administration, and geriatrics/gerontology, was empaneled. The Advisory Panel members were drawn from universities, public health departments at state and local levels, Geriatric Education Centers, and relevant associations. Representatives of appropriate Federal agencies served as resource representatives, augmenting the considerable expertise

of the Advisory Panel membership. A two-day meeting was convened to focus curriculum development through selection of topics for inclusion in the training, and discussion of recommended training resources and approaches. The meeting was attended by:

Panel Members

- Phil Weiler, M.D., M.P.H., Panel Chairperson
  Department of Community Health
  School of Medicine
  University of California at Davis

- John Arradondo, M.D., M.P.H., Director
  Department of Health and Human Services
  Houston, Texas

- Robert Butler, M.D., Chairman
  Ritter Department of Geriatrics and Adult Development
  Mt. Sinai School of Medicine

- William Carter, Ph.D.
  University of Washington
  School of Public Health

- J. Richard Connelly, Ph.D.
  Director of Gerontology
  University of Utah

- Rose Dobrof, D.S.W.
  Hunter/Mt. Sinai Geriatric Education Center
  Brookdale Center on Aging of Hunter College, CUNY

- Mary Ellis, R.Ph., M.P.A.
  Commission of Health
  State of Iowa

- Daniel Friedman, Ph.D.
  Director, Health Statistics and Research
  Massachusetts Department of Public Health

- Pearl German, Ph.D.
  Department of Health Policy and Management
  Johns Hopkins University
  School of Hygiene and Public Health

- Tom Hickey, Ph.D.
  Community Health Program
  Health Gerontology
  School of Public Health
  University of Michigan

- Jane Johnston
  Director of Training
  Human Resources
  American Association of Retired Persons

- Robert Kane, M.D., Dean
  School of Public Health
  University of Minnesota

- Marshall B. Kapp, J.D., M.P.H.
  Wright State University
  School of Medicine

- Bernice Parlak, M.S.W.
  Geriatric Education Center of Pennsylvania
  Temple University Institute on Aging

Resource Representatives

- Ronald B. Merrill, M.H.A.
  Public Health Service Project Officer
  Division of Associated and Dental Health Professions

- William D. Clark, M.A.
  Social Science Research Analyst
  Division of Long-Term Care Experimentation
  Office of Research Demonstrationn (ORD)/HCFA

- Marsha Goodwin, R.N., M.S.N., M.A.
  Chief, Education and Training for Geriatrics and Extended Care
  Veterans Administration

- Evan Hadley, M.D.
  Chief, Geriatrics Branch
  National Institute on Aging

- William Koenig, M.P.A.
  Deputy Chief
  Associate Health Professions Branch
  Division of Associated and Dental Health Professions

- Thomas L. Louden, D.D.S., Director
  Division of Associated and Dental Health Professions

- Marsha Ory, Ph.D.
  Chief, Social Science Research on Aging
  National Institute of Aging

TRI Project Staff

- **Joel Ann Todd, M.A.**
  Project Director

- **Shelli B. Rossman, M.A.**
  Project Manager

- **Rosalind Brannigan, M.P.H**
  Research Associate

- **Peter J. Pizzolongo, M.S.**
  Senior Associate

C. **Phase Two: Targeted Needs Assessment**

- **Following the Advisory Panel meeting, TRI designed and implemented a strategy for a needs assessment and a discussion guide.**

- **TRI staff conducted telephone conversations at the state and county, as well as city, level with staff of public health departments in 11 states and the District of Columbia. Contacts included health commissioners; epidemiologists; health department training specialists, physicians and nurses operating geriatric clinics; and chiefs of such administrative offices as long-term care, health planning and development, health promotion, community and rural health, and chronic diseases. In addition, site visits were made to several public health departments at both the state and local levels in Maryland to meet with cognizant personnel and actually obtain a first-hand exposure to daily routines. TRI staff also spoke with representatives of Offices on Aging at both state and local levels, by phone and in person, to determine their perspectives on the geriatric training needs of public health department personnel. Needs assessment respondents described a number of activities undertaken by public health, including assessment and treatment services provided by health centers and specialized clinics, adolescent pregnancy prevention programs, home health programs, geriatric programs, and mental health and addiction programs.**

- **In general, respondents who had oversight responsibilities for on-going geriatric programs/services were most able to pinpoint training needs or issues they felt required further attention. Training areas identified included information about effective health promotion programs, Medicare/Medicaid/Catastrophic care coverage, local linkages and continuum of care issues, nutrition, pharmacologic issues, and health education for fitness/exercise programs.**

D. **Phase Three: Curriculum Design**

- **TRI, in consultation with the Government Project Officer, developed a curriculum outline that blended the topics suggested by the Advisory Panel with those that emerged as a result of the needs assessment. Particular attention was paid to selecting issues that would not only attract professionals in public health departments, but also those in related agencies, such as Offices on Aging.**

- The first draft of the Geriatric Training Curriculum was pilot tested in July 1989 in a three-day-intensive Geriatric Training Institute under the auspices of the South Texas Geriatric Education Center in San Antonio, Texas. Eighteen participants, representing the Texas Department of Public Health at state and regional levels or from in-state area agencies on aging, attended the pilot test.

- Two activities were incorporated in the pilot strategy to enhance curriculum development:

  - The modules were implemented in an actual training setting by facilitators who had not been involved in the curriculum development process. This approach was used to obtain an objective assessment of whether the packages were truly self-contained and user friendly. The facilitators, who are listed below, were given the opportunity to critique content and form of all materials.

  - Pilot test participants completed evaluations of each training session. A sample of the evaluation instrument is presented in Appendix A.

Geriatric Training Institute Faculty

-- Michele J. Saunders, D.M.D., M.S., M.P.H.
Director, South Texas Geriataric Education Center

Sessions: Demographics, Biology of Aging, Continuum of Care, Health Promotion

-- Robert Oseasohn, M.D.
Professor and Associate Dean
School of Public Health at Houston
MPH Program at San Antonio

Session: Epidemiology

-- Mary Ann Matteson, Ph.D.
Assistant Professor
School of Nursing
University of Texas Health Science Center at San Antonio

Session: Psychosocial

-- David Warner, Ph.D.
LBJ School of Public Affairs

Session: Financing

-- Ruth A. Freiburger, M.A.
Education Specialist
South Texas Geriatric Education Center

Session: Health Promotion

-- Carolyn E. Marshall, M.P.H.
Community Education Coordinator
South Texas Geriatric Education Center

Session: Health Promotion

-- Myron Shank, M.D.
Division of Diabetes
Department of Medicine

Session: Health Promotion

- Based upon the critiques of the facilitators, the evaluations of the participants, and the observations of the TRI project staff and Government Project Officer that were recorded during the pilot test, the initial draft curriculum was revised and strengthened.

- Subsequently, the modules were reviewed by Advisory Panel members, whose critiques, together with that of the Government Project Officer, during late Summer, 1989, guided the final revision of all materials.

TIPS FOR FACILITATORS

To ensure effective training sessions designed to meet the needs of participants, facilitators should address the following issues.

Sensitivity of Language

The language used to develop programs for older adults is an important part of helping individuals empower themselves to deal with the aging process. Language is a symbol of sensitivity to a group's strengths, needs, and interests. Therefore, facilitators must select words carefully when conducting training.

Project staff have chosen the words "Black" and "Hispanic" to identify members of these racial/ethnic groups (consistent with the terminology presented in National Center for Health Statistics data and with the Centers for Disease Control classifications). However, identifiers most appropriate for the region in which training is conducted (e.g., "African-American," "Latino," "Chicano") should be used during the training session. Facilitators should contact racial/ethnic group leaders from the trainees' jurisdiction(s) prior to presenting the workshops to ensure that the appropriate identifiers are used.

Similarly, the term "elderly" has a long history of referring to adults, aged 65 and older. More recently, demographic shifts have underscored the heterogeneity of this group, leading to the recognition that at least two sub-sets exist within the 65+ cohort: the "young-old" and the "old-old" (who typically are frailer individuals). Many of the young-old are wary of the designation of "elderly" since they perceive it as conferring a status of infirmity to which they do not wish to lay claim. "Elderly" is still linguistically viable, but one should be alert to an audience's comfort and responsiveness when using terms that may be value laden.

In general, it is important not to stereotype individuals when discussing aging-related issues. Urban dwellers are not necessarily more socially conscious, modern, and formally educated than rural dwellers. Individuals who fall within the same age group may not share anything else in common except chronological age. Training sessions can, and should, be strengthened by discussing stereotypes and prejudices with representatives of appropriate groups, at the local level. Information about the manifestations of such attitudes and behaviors in the trainees' jurisdiction(s) can be integrated into the training content where appropriate.

Needs Assessment

Prior to scheduling and conducting training sessions, facilitators should assess the knowledge, skill, and attitude training needs of participants. Using surveys, pre-tests, and/or interviews, the specific needs of participants can be identified. Facilitators can then schedule sessions appropriately and modify training outlines, as necessary, to match the strengths, interests, and needs of the trainees.

An advantage of the modular approach of this Geriatric Training Curriculum is that it not only contains suggestions for optional activities, but also has an inherent flexibility that permits facilitators to add to, delete from, or restructure the existing material to tailor it to the specific needs of a select group.

Class Size

This curriculum was designed to provide for interactive training. Therefore, a class size of 15 to 30 participants would be optimal.

Training Strategies

- Lecture/Discussion -- Facilitators should familiarize themselves sufficiently with the training outline scripts to avoid reading from the script during the training session. Add anecdotes pertinent to the trainees' jurisdiction(s) to strengthen these segments; the inclusion of humor in the form of cartoons or tasteful jokes is not only a good icebreaker, but also creates a positive climate for training. If time permits, encourage participants to ask questions during the lecture segments, or respond to questions at the conclusion of these segments.

- Overheads -- Facilitators should talk from the overheads and not read them verbatim. The right column in the training outline provides information relevant to each overhead. The use of a pointer during discussion of charts and graphs can greatly enhance the impact of the data.

- Brainstorming -- This training strategy allows participants to identify many responses to a question (e.g., "What do you think about the Catastrophic Care Coverage Act of 1988?"). Brainstorming is an appropriate strategy when a question has many "right answers" or possibly no "right answers" (an open-ended question). It is not appropriate for questions that have only one or a few "right answers." Facilitators should ask participants to respond to brainstorming questions without commenting negatively on the relative merits of each response; although information that is factually incorrect should be accurately restated so as to clarify misinformation and prevent its repetition.

- Values Clarification -- This strategy is used in the Psychosocial Issues module. Its purpose is to help trainees recognize how their own attitudes can influence decision making and planning, as well as treatment and care. This type of strategy works best when used in training situations of low threat, in which an individual can shift his or her attitudes without feeling defensive or threatened. Facilitators should approach this activity as an "off-the-record" discussion in as "judgment-free" an atmosphere as possible. The training outline for the Psychosocial Issues module includes objective information for facilitators to share with trainees at the conclusion of the values clarification activity.

- Group Discussions -- Most of the modules include group discussion activities. These activities are designed to tailor the lecture information to the needs in the trainees' jurisdiction(s). Each discussion activity is based on a series of written questions to which participants respond individually and/or within their groups. Some of the activities lead to a "debriefing" report from each group. The training outline provides questions for facilitating large group discussions at the conclusion of the small group activities.

The Geriatric Training Curriculum for Public Health Professionals can be a useful tool for increasing knowledge of geriatric/gerontologic issues and for developing the competencies to deal with older adults. The Bureau of Health Professions and TRI hope that training providers can incorporate this curriculum with other quality programs.

BIBLIOGRAPHY

1. Abramowitz, M. "Age and Economics--Should Expensive Procedures Be Limited on the Basis of Age?" *Washington Post*, January 26, 1988.

2. Ahmed, S.M., Kraft, I.A., Porter, D.M. "Attitudes of Different Professional Groups Toward Geriatric Patients," *Gerontology and Geriatrics Education*, 6(4):77-86, Summer 1986.

3. The Alzheimers's Disease Center and National Institute on Aging. *Q&A: Alzheimer's Disease*, NIH Pub. No. 85-1646, May 1985.

4. American Association of Retired Persons. *A Profile of Older Americans: 1985*, Washington, DC, 1985.

5. Applebaum, R.A. and Wilson, N.L. "Training Needs for Providing Case Management for the Long Term Care Client: Lessons from the National Channeling Demonstration," *The Gerontologist*, 28(2):172-176, 1988.

6. Arie, T.H.D. "Education in the Care of the Elderly," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):492-500, July-August 1985.

7. Austin, D.R. "Attitudes Toward Old Age: A Hierarchical Study," *The Gerontologist*, 25(4):431-434, 1985.

8. Author Unknown. "Long Term Care Program Promised," *The Nation's Health*, March 1988.

9. Author Unknown. "Medicare's Fiscal Dilemma," *The Urban Institute Policy and Research Report*, 18(1), Winter 1988.

10. Author Unknown. "State Health Reports," *The Nation's Health*, p. 14, January 1988.

11. Bass, S.A. "Symposium on Tomorrow's Able Elderly: Implications for Policy and Practice - Introduction," *The Gerontologist*, 27(4):403-404, 1987.

12. Bender, C. and Hart, J.P. "A Model for Health Promotion for the Rural Elderly," *The Gerontologist*, 27(2):139-142, 1987.

13. Berk, M.L. and Wilensky, G.R. "Health Care of the Poor Elderly: Supplementing Medicare," *The Gerontologist*, 25(3):311-314, 1985.

14. Berkman, L.F. "The Assessment of Social Networks and Social Support in the Elderly," *Journal of the American Geriatrics Society*, 31(12):743-749, December 1983.

15. Berman, S., Delancey, N., Gallagher, D., Atkins, P., and Graeber, M.P. "Respite Care: A Partnership Between a Veterans Administration Nursing Home and Families to Care for Frail Elders at Home," *The Gerontologist*, 27(5):581-584, 1987.

16. Berry, G.L., Smyer, M.A., and Lago, D. "State-Level Pharmaceutical Assistance Programs for the Elderly: A National Survey," *American Journal of Public Health*, 78(2), February 1988.

17. Besdine, R. "The Educational Utility of Comprehensive Functional Assessment in the Elderly," *Journal of the American Geriatrics Society*, 31(11):651-656, November 1983.

18. Besdine, R.W. *Observations on Geriatric Medicine*, DHEW Pub. No. (NIH) 79-162, National Institute on Aging, 1979.

19. Binstock, R.H. "Title III of the Older Americans Act: An Analysis and Proposal for the 1987 Reauthorization," *The Gerontologist*, 27(3):259-265, 1987.

20. Blazer, D. "Home Health Care: House Calls Revisited," *American Journal of Public Health*, 78(3):238-239, March 1988.

21. Blumenfield, S. "Gerontology Journal Club: A Continuing Education Modality for Experienced Social Workers in an Acute Hospital Setting," *The Gerontologist*, 25(1):11-14, 1985.

22. Branch, L.G., Wetle, T.L, Scherr, P.A., Cook, N.R., et al. "A Prospective Study of Incident Comprehensive Medical Home Care Use Among the Elderly," *American Journal of Public Health*, 78(3):255, March 1988.

23. Brody, S.J. "Strategic Planning: The Catastrophic Approach," *The Gerontologist*, 27(2):131-138, 1987.

24. Buchanan, J. and Santos, J.F. "A Report from an Interdisciplinary Conference on Mental Health and Aging," *Gerontology and Geriatrics Education*, 7(1):1-3, Fall 1986.

25. Burroughs, P., Young, J.E., Silverman, M., Ricci, E., Shore, B.K., Lago, D. "The Development and Evaluation of Training Standards for the Aging Network and Academia: II Summary of Project Products and the Process of Their Validation," *Gerontology and Geriatrics Education*, 7(2):47-54, Winter 1986.

26. Calkins, E. "Residency Training in Geriatric Medicine - 1984," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):534-, July-August 1985.

27. Capitman, J.A. "Community-Based Long-Term Care Models, Target Groups and Impacts on Service Use," *The Gerontologist*, 26(4):389-397, 1986.

28. Capitman, J.A., Arling, G., and Bowling, Cindi. "Public and Private Costs of Long-Term Care for Nursing Home Pre-Admission Screening Program Participants," *The Gerontologist*, 27(6):780-787, 1987.

29. Capitman, J.A., Haskins, B., and Bernstein, J. "Case Management Approaches in Coordinated Community-Oriented Long-Term Care Demonstrations," *The Gerontologist*, 26(4):398-404, 1986.

30. Castro, J. "Critical Condition," *Time*, p. 42, February 1, 1988.

31. Champlin, L. "Long-Term Care: Protecting the Elderly From Going Broke," *Geriatrics*, 43(4):96-102, 1988.

32. Chandler, J.T., Rachal, J.R., and Kazelskis, R. "Attitudes of Long-Term Care Nursing Personnel Toward the Elderly," *The Gerontologist*, 26(5):551-555, 1986.

33. Chappell, N.L. and Blandford, A.A. "Adult Day Care and Medical and Hospital Claims," *The Gerontologist*, 27(6):773-779, 1987.

34. Chen, Y-P. "Making Assets Out of Tomorrow's Elderly," *The Gerontologist*, 24(4):410-416, 1987.

35. Cherry, D.L. and Rafkins, M.J. "Adapting Day Care to the Needs of Adults with Dementia," *The Gerontologist*, 28(1):116-120, 1988.

36. Clark, P.G. "The Social Allocation of Health Care Resources: Ethical Dilemmas in Age-Group Competition," *The Gerontologist*, 25(2):119-125, 1985.

37. Cohen, M.A., Tell, E.J., Greenberg, J.N., and Wallack, S.S. "The Financial Capacity of the Elderly to Insure for Long-Term Care," *The Gerontologist*, 27(4):494-502, 1987.

38. Committee on Leadership for Academic Geriatric Medicine. "Report of the Institute of Medicine: Academic Geriatrics for the Year 2000," *Journal of the American Geriatrics Society*, 35(8):773-791, August 1987.

39. Cook, F.L. "A Symposium on Measuring Hardship Among Older Americans During the First Four Years of the Reagan Administration - Introduction," *The Gerontologist*, 26(1):25-26, 1986.

40. Cook, F.L. and Kramek, L.M. "Measuring Economic Hardship Among Older Americans," *The Gerontologist*, 26(1):38-47, 1986.

41. Doka, K.J. and Smith-Fraser, D. "The Goals of Master-level Gerontological Students: An Institutional Study," *Gerontology and Geriatrics*, 7(1)75-83, Fall 1986.

42. Doress, P.B. and Siegal, D.L. *Ourselves, Growing Older. Women Aging with Knowledge and Power*, Simon and Schuster, New York, 1987.

44. Drinka, T. and Ray, R.O. "An Investigation of Power in an Interdisciplinary Health Care Team," *Gerontology and Geriatrics Education*, 6(3):43-53, Spring 1986.

45. Eisdorfer, C. "Educating for Caring," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):573-579, July-August 1985.

46. Elster, S.K. "Introductory Remarks," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):469-470, July-August 1985.

47. Falcone, A. "Comprehensive Functional Assessment as an Administrative Tool," *Journal of the American Geriatrics Society*, 31(11):642-650, November 1983.

48. Famiglietti, R.A. "Meeting an Emergent Need in Curriculum Development: Aging and Developmental Disabilities," *Gerontology and Geriatrics Education*, 6(1):25-35, Fall 1985.

49. Fanelli, M.T. and Abernethy, M.M. "A Nutritional Questionnaire for Older Adults," *The Gerontologist*, 26(2):192-197, 1986.

50. Ford, A.B. "Looking After the Old Folks," *American Journal of Public Health*, 77(12):1499-1510, December 1987.

51. Freedman, M.L. "Medical Education in Geriatrics: Ethical and Social Concerns," *Symposium the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):501-505, July-August 1985.

52. Frongillo, E.A., Jr., Williamson, D.F., Roe, D., and Scholes, J. "Continuance of Elderly on Home-Delivered Meals Programs," *American Journal of Public Health*, 77(9), September 1987.

53. Geriatrics Panel and Discussion. "Practical Considerations in Managing Alzheimer's Disease: I," *Geriatrics*, 42(9):78-98, September 1987.

54. Geriatrics Panel and Discussion. "Practical Considerations in Managing Alzheimer's Disease: II," *Geriatrics*, 42(10):55-65, October 1987.

55. Gibbs, N.R. "Grays on the Go," *Time*, p. 66, February 22, 1988.

56. Granick, S. "Psychologic Assessment Technology for Geriatric Practice," *Journal of the American Geriatrics Society*, 31(12):728-742, December 1983.

57. Greene, M.G., Hoffman, S., Charon, R., and Adelman, R. "Psychosocial Concerns in the Medical Encounter: A Comparison of the Interactions of Doctors with Their Old and Young Patients," *The Gerontologist*, 27(2):164-168, 1987.

58. Grover, S., M.D., et al. "Impact of Medicare on Early Cancer Detection in the Elderly," *American Journal of Public Health*, 78(1):58-60, January 1988.

59. Gruca, J.A. "Three Perspectives on Curriculum Development in Gerontology," *Gerontology and Geriatrics Education*, 6(3):65-72, Spring 1986.

60. Hagestad, G.O. "Able Elderly in the Family Context: Changes, Chances, and Challenges," *The Gerontologist*, 27(4):417-422, 1987.

61. Harel, Z., Noelker, L., and Blake, B.F. "Comprehensive Services for the Aged: Theoretical and Empirical Perspectives," *The Gerontologist*, 25(6):644-649, 1985.

62. Havlik, R.J., Liu, B.M., Kovar, M.G., et al. "Health Statistics on Older Persons," National Center on Health Statistics, p. 1-77, 1986.

63. Hay, J. and Ernst, R. "The Economic Costs of Alzheimer's Disease," *American Journal of Public Health*, 77(9)1169-1175, September 1987.

64. Henig, R. "Can -or Should- We Conquer Aging," *Washington Post Health*, p. 10, November 24, 1987.

65. Henninger, J.L., Henninger, W.B., Morse, C.K., and Zweigenhaft, R.L. "Physicians' Awareness of Services for the Elderly," *Gerontology and Geriatrics Education*, 7(2):21-28, Winter 1986.

66. Hesse, K.A., Levkoff, S.E., Campion, E.W. "House Officers' Knowledge of Geriatric Health Policy: Are the Gatekeepers Learning the Rules?," *The Gerontologist*, 28(2):233-236, 1988.

67. Hickey, T. *Health and Aging*, Wadsworth, Inc., Belmont, CA, 1980.

68. Higbie, L. "To Understand the Aging Process: The Baltimore Longitudinal Study of the National Institute on Aging," NIH Pub. No. 80-134, August 1980.

69. Hing, E. *Use of Nursing Homes by the Elderly: Preliminary Data from the 1985 National Nursing Home Survey*, National Center for Health Statistics, No. 135. DHHS Pub. No. (PHS) 87-1200, Public Health Service, Hyattsville, MD.

70. Hofland, B.F., Kirby, William, T., Hennessy, M., Lawler, T., and Santos, J.F. "A National Media Awards Competition in Gerontology and Geriatrics," *Gerontology and Geriatrics Education*, 7(1):5-13, Fall 1986.

71. Hofland, B.F., Smyer, M.A., Wetle, T., Walter, Adrian R. "Linking Research and Practice: The Fellowship Program in Applied Gerontology," *The Gerontologist*, 27(1):39-45, 1987.

72. Hudson, R.B. "Tomorrow's Able Elders: Implications for the State," *The Gerontologist*, 24(4):405-409, 1987.

73. Johnson, J.E., III. "Geriatrics and Medical Education - Initiatives of the Association of American Medical Colleges," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):484-491, July-August 1985.

74. Kahn, R.L. "Productive Behavior: Assessment, Determinants, and Effects," *Journal of the American Geriatrics Society*, 31(12):750-757, December 1983.

75. Kane, R., Solomon, D., Beck, J., Keeler, E., and Kane, R. "The Future Need for Geriatric Manpower in the United States," *The New England Journal of Medicine*, 302(24):1327-1332, June 1980.

76. Kane, R.A., and Kane, R.L. *Assessing the Elderly: A Practical Guide to Measurement*, Lexington, Mass: Lexington Books, 1981.

77. Kapp, M. "Interprofessional Relationships in Geriatrics: Ethical and Legal Considerations," *The Gerontologist*, 27(5):547-552, 1987.

78. Karuza, J., Jr., Calkins, E., Duffey, J., and Feather, J. "Network in Aging: A Challenge, Model, and Evaluation," *The Gerontologist*, 28(2):147-155, 1988.

79. Katz, S. "Assessing Self-Maintenance: Activities of Daily Living, Mobility, and Instrumental Activities of Daily Living," *Journal of the American Geriatrics Society*, 31(12):721-727, December 1983.

80. Kim, P.K.H., Johnson, D.P., Su, L. "Education for Gerontological Social Workers: Problems and Prospects," *Gerontology and Geriatrics Education*, 6(4):69-76, Summer 1986.

81. Kosberg, J.I. "Preventing Elder Abuse: Identification of High Risk Factors Prior to Placement Decisions," *The Gerontologist*, 28(1):43-50, 1988.

82. Kroger, M.H., Papsidero, J.A., Isaacs, F., Jr., Gesten, F.C. "The Content of Textbooks in Geriatric Medicine: Some Directions for Improvement," *Gerontology and Geriatrics Education*, 7(1):37-53, Fall 1986.

83. Krout, J.A. "Rural-Urban Differences in Senior Center Activities and Services," *The Gerontologist*, 27(1):92-97, 1987.

84. Lago, D., Silverman, M., Eisele, F., Ricci, E., Britton, J. "The Development and Evaluation of Training Standards for the Aging Network and Academia: III. Conclusions and Implications," *Gerontology and Geriatrics*, 7(2):55-65, Winter 1986.

85. Lebowitz, B.D., Light, E., and Bailey, F. "Mental Health Center Services for the Elderly: The Impact of Coordination With Area Agencies on Aging," *The Gerontologist*, 27(6):699-702, 1987.

86. Leutz, W., Abrahams, R., Greenlick, M., Kane, R., Prottas, J. "Targeting Expanded Care to the Aged: Early SHMO Experience," *The Gerontologist*, 28(1):4-17, 1988.

87. Linsk, N.L, Keigher, S.M., and Osterbusch, S. "States' Policies Regarding Paid Family Care Giving," *The Gerontologist*, 28(2):204-212, 1988.

88. Lubomudrov, S. "Congressional Perceptions of the Elderly: The Use of Stereotypes in the Legislative Process," *The Gerontologist*, 27(1):77-81, 1987.

89. Ludman, E.K. and Newman, J.M. "Frail Elderly: Assessment of Nutrition Needs," *The Gerontologist*, 26(2):198-202, 1986.

90. Magee, J.H. *Gerontology Programs and Curricula in U.S. Schools of Public Health*, ASPH for HRSA, June 1985.

91. Michielutte, R., Diseker, R.A. "Health Care Providers' Perceptions of the Elderly and Level of Interest in Geriatrics as a Specialty," *Gerontology and Geriatrics Education*, 5(2):65-85, Winter 1984/85.

92. Miko, P.S. "College Students and Institutionalized Elderly: Attitudinal Effects of Interactive Contacts," *Gerontology and Geriatrics Education*, 6(3):37-42, Spring 1986.

93. Moon, M. "Impact of the Reagan Years on the Distribution of Income of the Elderly," *The Gerontologist*, 26(1):32-37, 1986.

94. Morris, R. "Concluding Remarks: Consequences of the Demographic Revolution," *The Gerontologist*, 27(4):423-424, 1987.

95. Mullins, L.C., McNicholas, N. "Loneliness Among the Elderly: Issues and Considerations for Professionals in Aging," *Gerontology and Geriatrics Education*, 7(1):55-65, Fall 1986.

96. National Advisory Council on Aging. *Our Future Selves. A Research Plan Toward Understanding Aging: Report of the Panel on Behavioral and Social Sciences Research*, NIH Pub. No. 80-1444, January 1980.

97. National Advisory Council on Aging. *Our Future Selves. A Research Plan Toward Understanding Aging: Report of the Panel on Research on Human Services and Delivery Systems*, NIH Pub. No. 80-1443, January 1980.

98. National Center for Health Statistics. "Aging in the Eighties, Age 65 Years and Over - Use of Community Services," *Advancedata*, 124:1-7, September 1986.

99. National Center for Health Statistics. "Use of Nursing Homes by the Elderly: Preliminary Data from the 1985 National Nursing Home Survey," *Advancedata*, 135:1-11, May 1987.

100. National Institute on Aging, NIH Pub. No. 83-1129, July 1983.

101. National Institute on Aging. *Age Page: Stroke: Prevention and Treatment*, DHHS, 1986.

102. National Institute on Aging. *Age Page: When You Need a Nursing Home*, DHHS, 1986.

103. National Institute on Aging. *Aging and Minorities*, GPO 885-273, 1981.

104. National Institute on Aging. *Changes: Research on Aging and the Aged*, NIH Pub. No. 81-85, October 1980.

105. National Institute on Aging. *Osteoporosis & Aging*, GPO 885-297, 1987.

106. National Institute on Aging. *Personnel for Health Needs of the Elderly Through the Year 2020*, September 1987.

107. National Institute on Aging. *Perspectives on Geriatric Medicine*, NIH Pub. No. 81-1924, October 1980.

108. National Institute on Aging. *Progress Report on Alzheimer Disease: Volume III*, NIH Pub. No. 86-2873, December 1986.

109. National Institute on Aging. *Special Report on Aging 1983*, NIH Pub. No. 83-2489, August 1983.

110. National Institute on Aging and Pfizer Pharmaceuticals. *Help Yourself to Good Health.*

111. National Institute on Aging Task Force. "Senility Reconsidered--Treatment Possibilities for Mental Impairment in the Elderly," *JAMA*, 244(3):259-263, 1980.

112. Netting, F.E, Wilson, C.C. "Current Legislation Concerning Life Care and Continuing Care Contracts," *The Gerontologist*, 27(5):645-651, 1987.

113. Nusberg, C. "Survey on International Course Content Related to Aging in the Curricula of American Higher Education," *Gerontology and Geriatrics Education*, 6(3):73-77, Spring 1986.

114. Oktay, J.S., Volland, P.J. "Foster Home Care for the Frail Elderly as an Alternative to Nursing Home Care: An Experimental Evaluation," *American Journal of Public Health*, 77(12):1505-1510, 1987.

115. Petchers, M.K., Milligan, S.E., "Access to Health Care in a Black Urban Elderly Population," *The Gerontologist*, 28(2):213-217, 1988.

116. Peterson, D.A. "Extent of Gerontology Instruction in American Institutions of Higher Education," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 1, Fall 1986.

117. Peterson, D.A. "Gerontology Courses," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 4, Spring 1987.

118. Peterson, D.A. "Gerontology Credentials," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 3, Spring 1987.

119. Peterson, D.A. "Organizational Structures of Gerontology Instructional Programs," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 2, Winter 1986/87.

120. Peterson, D.A. "Graduates' Perceptions of Gerontology Master's Degree Curricula," *Gerontology and Geriatrics Education*, 5(3):19-27, Spring 1985.

121. Pillemer, K, Finkelhor, D. "The Prevalence of Elder Abuse: A Random Sample Survey," *The Gerontologist*, 28(1):51-57, 1988.

122. Rick, S. . "Hill Conferees Drafting 'Catastrophic' Health Deal," *Washington Post*, p. A6, March 1988.

123. Rick, S. "Shaking Up the System With Data for Consumers, Medicare Chief Hopes Initiatives Set Pattern," *Washington Post*, March 22, 1988.

124. Roden, J. "Aging and Health: Effects of the Sense of Control," *Science*, 33:1271-1275, September 1986.

125. Rossman, I. "Comprehensive Functional Assessment: A Commentary," *Journal of the American Geriatrics Society*, 31(12):763-765, December 1983.

126. Rubenstein, L. "The Chemical Effectiveness of Multidimensional Geriatric Assessments," *Journal of the American Geriatrics Society*, 31(12):758-762, December 1983.

127. Ruchlin, H.S. "Continuing Care Retirement Communities: An Analysis of Financial Viability and Health Care Coverage," *The Gerontologist*, 28(2):156-162, 1988.

128. Samuelson, R.J. "The Elderly Aren't Needy," *Newsweek*, March 21, 1988, p. 68.

129. Select Committee on Aging (House of Representatives): *America's Elderly at Risk*, July 1985.

130. Sharp, S.J.; Britton, J.H., Lazo, D., Ricci, E., Silverman, M. Shore, B.K., Young, J.E. "The Development and Evaluation of Training Standards for the Aging Network and Academia: I. Background and Rationale," *Gerontology and Geriatrics Education*, 7(2):39-45, Winter 1986.

131. Silverman, M., Shore, B.K., Jewell, I.K. "The Development and Evaluation of Training Standards for the Aging Network and Academia: IV: One Year Follow-Up Evaluation of the Implementation of the Training Standards," *Gerontology and Geriatrics Education*, 7(2):67-81, Winter 1986.

132. Sinclair, M. "Study Links Poverty, Health Care," *Washington Post*.

133. Smith, E.T., Kelly, K., Brown, C. "Aging: Can it Be Slowed?," *Business Week*, p. 58, February 1988.

134. Sommers, A.R., and Fabian, D.R. (Eds). *The Geriatric Imperative: An Introduction to Gerontology and Clinical Geriatrics*, Appleton-Century-Crafts, New York, N.Y., 1981.

135. Stone, Robyn, *Aging in the Eighties. Age 65 Years and Over - Use of Community Services: Preliminary Data from the Supplement on Aging to the National Health Interview Survey: United States. January - June 1985*, National Center for Health Services, Number 124, DHHS Pub. No. (PHS) 86-1250. Public Health Service, Hyattsville, MD, September 1986.

136. Storey, J.R. "Policy Changes Affecting Older Americans During the First Reagan Administration," *The Gerontologist*, 26(1):27-31, 1986.

137. Task Force on Alzhemier's Disease. *Alzheimer's Disease: A Scientific Guide for Health Practitoners*, NIH No. 84-2251, May 1984.

138. Taylor, H., Kagay, M. Leichenko, S. *Problems Facing Elderly Americans Living Along: A National Survey*, Louis Harris and Associates, Inc., 1986.

139. Tell, E.J., Cohen, M.A.; Larson, M.J., and Batten, H.J. "Assessing the Elderly's Preferences for Lifecare Retirement Options," *The Gerontologist*, 27(4):503-509, 1987.

140. Torres-Gil, F. and Pynoos, J. "Long-Term Care Policy and Interest Group Struggles," *The Gerontologist*, 26(5):488-495, 1986.

141. Touifexis, A. "Older - But Coming on Strong," *Time*, p. 76, February 22, 1988.

142. Turpic, I.D., Patterson, C., Chalklen, L.W., Bayne, R., Roy, J., Neufeld, C. "The McMaster Model for Geriatric Undergraduate Experience," *Gerontology and Geriatrics Education*, 6(4):59-67, Summer 1986.

143. U.S. Senate Special Committee on Aging. *Aging America. Trends and Projections*, 1987-1988 Edition.

144. U.S. Senate Special Committee on Aging. *The Health Status and Health Care Needs of Older Americans (An Information Paper)*, November 1986.

145. U.S. Senate Special Committee on Aging. *How Older Americans Live: An Analysis of Census Data*, October 1985.

146. U.S. Senate Special Committee on Aging. *Nursing Home Care: The Unfinished Agenda*, May 1986.

147. Weg, R.B. "AGHE - Coming of Age," *Gerontology and Geriatrics Education*, 5(1):17-31, Fall 1984.

148. Weiler, P.G. "The Public Health Impact of Alzheimer's Disease," *American Journal of Public Health*, 77(9).

149. Weiner, J.M., Ehrenworth, D.A., Spence, D.A. "Private Long-Term Care Insurance: Cost, Coverage, and Restrictions," *The Gerontologist*, 27(4):487-493, 1987.

150. Wilcop, Frances, M. "Issues in the Development of Training for Mental Health Service to the Elderly," *Gerontology and Geriatrics Education*, 6(2):49-63, Winter 1985.

151. Williams, T.F. "Comprehensive Functional Assessment: An Overview," *Journal of the American Geriatrics Society*, 31(11):637-641, November 1983.

152. Williams, T.F. "The Geriatric Medical Education Imperative," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):471-477, July-August 1985.

153. Williams, M.E. "A Critical Evaluation of the Assessment Technology for Urinary Continence in Older Persons," *Journal of the American Geriatrics Society*, 31(11):657-664, November 1983.

154. Yeatts, D.E., Capitman, J.A., Steinhardt, B.J. "Evaluation of Connecticut's Medicaid Community Case Waiver Program," *The Gerontologist*, 27(5):652-659, 1987.

155. Young, C.L., Goughler, D.H., Larson, P.J. "Organizational Volunteers for the Rural Frail Elderly: Outreach, Casefinding, and Service Delivery," *The Gerontologist*, 26(4):342-394, 1986.

I. Introduction

Introduction to Module: Psychosocial Issues Affecting Older Adults and Their Caregivers

The primary purpose of this module is to identify the psychosocial concerns of the elderly and their caregivers, as well as appropriate public health interventions to address these concerns.

This module examines society's perceptions of the elderly in light of our heavily youth-oriented culture and provides values clarification regarding ageism. The module also identifies how the health care delivery system for the elderly is affected by health care practitioner bias against the elderly. In addition, the module delineates emotional responses of the elderly to aging, responses to crises, symptoms of organic brain disorders, and reactions to victimization. Finally, this module presents an approach for public health interventions in attending to the psychological needs of the elderly and in supporting their family caregivers.

Notes to the Instructor

The remainder of this module is organized into six sections. Section II presents the Overview of the training, as well as a listing of the resources referenced within the training module.

Section III contains the core content for the training module. The materials have been organized in nine sub-sections to facilitate a range of training formats, such as lunch-time sessions through full-day workshops. The Training Content is presented in a two-column format. The left-hand column presents miniaturized versions of the overheads designed to accompany training lectures/discussions. The overheads are symbolized by boxes formed of unbroken lines. Directions for training activities are also placed in the left-hand column; these are denoted by dotted lines. Many activities require the use of flipcharts and markers; please be sure you have arranged for these materials. The right-hand column contains the substantive material that serves as a script for training. Where handouts accompany the training, these have been noted by a symbol of three overlapping pages.

Section IV presents the full-scale version of Overheads. These may be used as overheads or may be duplicated for use as handouts. When using these materials as overheads, remember that you will need to have access to an overhead projector and screen. Trainers may find the use of slides more convenient than overheads. The material in Section IV can be formatted as slides. The visual image of such slides may be enhanced by using a blue background with white print.

Section V presents the Handouts that accompany the training content. Both overheads and handouts should be assembled and reviewed prior to use in a training session. It is advisable to prepare sufficient copies of handouts for the anticipated number of trainees, as well as a few extra for unforeseen circumstances.

Section VI presents relevant Resources, including bibliographies, that may be useful to the trainer and/or to trainees. You may wish to make duplicate copies of these resource listings for distribution during or immediately following training sessions.

Section VII presents Readings that serve as background to the training issues or that provide additional detail on selected issues. These readings may be recommended to trainees in advance of actual training sessions, or upon completion of the module.

II. Overview

Overview of Training: Psychosocial Issues That Affect Older Adults and Their Caregivers

1. **Society's Perceptions of the Elderly**

Time: Lecture/Discussion (45 minutes), including:
- Values Clarification Activity or Aging Semantic Differential, or Media Images (30 minutes)
- Quick Response (10 minutes)

Objective: To examine society's perceptions of the elderly in light of a youth-oriented culture.

Overheads:
1. Perceptions of the Elderly
2. Ageism

Handouts:
1. The Little Boy and the Old Man
2. The Aging Semantic Differential

2. **Ageism Debunked**

Time: Lecture/Discussion (30 minutes), including:
- Discussion of Myths of Aging (5-10 minutes)
- Quick Response (2 minutes)

Objective: To identify myths and misconceptions about the elderly in order to replace them with facts.

Overheads:
1. Myths
2. The Health Care Delivery System

Handouts:
1. Debunking Myths about Aging

3. **Communications Between Physicians and Patients**

Time: Role Play and and Discussion (60 minutes)
- Quick Response (15 minutes)

Objective: To identify ways that public health professionals can help health care practitioners understand the effects of bias against the elderly.

Handouts: 1. Communications Between Physicians and Patients Scripts

4. **Emotional Responses of the Elderly to Aging**

Time: Lecture/Discussion (15 minutes), including:
- Script Cards (5 minutes)

Objective: To identify the changes that the elderly confront in their lives.

Overheads:
1. Intervention of Public Health Professionals
2. Public Health Role

Special Preparation: Script Cards (Preparation of Index Cards Required)

5. **Responses to Crises**

Time: Lecture/Discussion (15 minutes)

Objective: To identify normal and dysfunctional responses of the elderly to crises, as well as the symptoms of depression and organic brain disorders.

Overheads:
1. Grief
2. Stages of Grief
3. Public Health Support
4. Symptoms of Depression
5. Categories of Depression
6. Symptoms of Alzheimer's Disease
7. The Short Portable Mental Status Questionnaire

Handouts:
1. The Short Portable Mental Status Questionnaire

6. Victimization

Time: Lecture/Discussion (45 minutes), including:

- Defining Elder Abuse (5 minutes)
- Group Discussion of Appropriate Interventions (20 minutes)

Objective: To identify three forms of victimization of the elderly: domestic abuse, scams against the elderly, and other crimes against the elderly.

Overheads:

1. Injuries Suffered by Victims of Crime
2. Elder Abuse
3. High-Risk Elderly
4. High-Risk Caregivers
5. High-Risk Family Systems
6. Scams Targeted at the Elderly
7. Crime-Stress Reaction

Special Preparation: Determine state and local legislation, regulations, or other policies currently in effect with respect to victimization of the elderly.

7. **Planning a Program for Public Health Professionals to Improve Skills in Attending to Psychosocial Needs of the Elderly**

Time: Small Group Activity/Discussion (30 minutes)

Objective: To discuss ways that public health professionals can increase the competence of their jurisdiction's personnel in addressing psychosocial needs.

Handouts:
1. Planning a Program for Public Health Professionals to Improve Skills in Attending to Psychosocial Needs of the Elderly

8. **Assessing Mental Health Support Systems for the Elderly**

Time: Group Discussio.. (30 minutes)

Objective: To define community support systems and methods for networking with other agencies.

Overheads: 1. Community Support Systems

9. **Providing Assistance to Family Caregivers**

Time: Lecture/Discussion (60 minutes), including:
- Public Health Interventions for Family Caregivers (30 minutes)

Objective: To identify strategies that meet the support needs of family caregivers.

Overheads:
1. Caregivers of Disabled Elderly
2. Areas of Concern
3. Interventions for Caregivers
4. Education and Training Programs
5. Mutual Aid and Self-Help Programs
6. Formalization and Coordination of Family Caregiving

Handouts:
1. Public Health Interventions for Family Caregivers Worksheet

References

Ahmed S, Kraft I, and Porter D. Attitudes of Different Professional Groups Toward Geriatric Patients. *Gerontology and Geriatrics Education*. 6(4):77-85, Summer 1986.

American Bar Association. *Effective Counseling of the Elderly: The Attorney Client Relationship*. May 1983.

American Bar Association. *Legal Services for the Elderly: Where the Nation Stands*. August 1984.

Austin DR. Attitudes Toward Old Age: A Hierarchical Study. *The Gerontologist*. 25: 431-434, 1985.

Biegel D, Shore B, and Gordon E. *Building Support Networks for the Elderly*. Beverly Hills, CA: SAGE Publications, Inc., 1986.

Butler R. Age-ism: Another Form of Bigotry. *The Gerontologist*. 9:243-246, 1969.

Chandler JT, Rachal JR, and Kazelskis R. Attitudes of Long-Term Care Nursing Personnel Toward the Elderly. *The Gerontologist*. 26:551-555, 1986.

Crossman DK. Daughters and Aging Parents: The Other Generation Gap. In The Ohio Valley Appalachia Regional Geriatric Education Center, University of Kentucky. *Developing Leadership in Geriatric Education: Proceedings* (Summer Institute 1988).

Dunkle RE, Hang MR, and Rosenberg M. *Communications Technology and the Elderly*. New York: Springer Publishing Company, 1984.

Elster SK. Introductory Remarks. *Symposium on the Geriatric Medical Education Imperative, Bulletin of the New York Academy of Medicine*. 61:469-470, July-August, 1985.

Gibbs N. Group on the Go. *Time*. 66, February 20, 1988.

Grady S. *Mental Health and Aging: An In-Service Training Guide*. Lansing, MI: Office of Services to the Aging, 1987.

Greater New York Hospital Foundation, Inc. AIOS and Alzheimer's Disease, 1988.Greenberg J and Becker M. Aging Parents as Family Resources. *The Gerontologist*. 28:786-791, 1988.

References (Continued)

Greene M G, Hoffman S, Charon R, and Adelman R. Psychosocial Concerns in the Medical Encounter: A Comparison of the Interactions of Doctors with Their Old and Young Patients. *The Gerontologist.* 27:164-168, 1987.

Henninger J, Henninger W, Morse C, and Zweigenhaft R. Physicians' Awareness of Services for the Elderly. *Gerontology and Geriatrics Education.* 7: 21-28, 1986.

Hickey T. *Health and Aging.* Monterey, CA: Brooks/Cole Publishing Co., 1980.

Horowitz A. Family Caregiving to the Frail Elderly. In C. Eisorfer (ed.), *Annual Review of Gerontology and Geriatrics* . Volume 5. New York: Springer, 1985.

Kahn R, Goldfarb A, Pollack M, and Peck A. Brief Objective Measures for Determination of Mental Status in the Aged. *American Journal of Psychiatry.* 117:326-328, 1960.

Kane R, Solomon D, Beck J, Kever E, and Kane R. The Future Need for Geriatric Manpower in the United States. *The New England Journal of Medicine.* 302(34):1327-1332, June 1980.

Kemper DW, Deneen EJ, and Giuffre J. *Growing Younger: The Older Person's Guide to Health and Wellness.* Boise, ID: Healthwise, Inc., 1987.

Kemper DW, Mettler M, Giuffre J, and Matzek B. *Growing Wiser: The Older Person's Guide to Mental Wellness.* Boise, ID: Healthwise, Inc., 1986.

Kinney J and Stephens M. Caregiving Hassles Scale: Assessing the Daily Hassles of Caring for a Family Member with Dementia. *The Gerontologist.* 29:328-332, 1989.

Kosberg J. Preventing Elder Abuse: Identification of High Risk Factors Prior to Placement Decisions. *The Gerontologist.* 28:43-50, 1988

Lebowitz B, Light E, and Bailey F. Mental Health Center Services for the Elderly: The Impact of Coordination with Area Agencies on Aging. *The Gerontologist.* 27:699-702, 1987.

Lubomudrov S. Congressional Perceptions of the Elderly: The Use of Stereotypes in the Legislative Process. *The Gerontologist.* 27:77-81, 1987.

Louis Harris and Associates, Inc. *Problems Facing Elderly Americans Living Alone.* 1986.

Michielutte R and Diseker RA. Health Care Providers' Perceptions of the Elderly and Level of Interest in Geriatrics as a Specialty. *Gerontology and Geriatrics Education.* Vol. 5(2):65-85, Winter 1984/5.

Miko P. College Students and Institutionalized Elderly: Attitudinal Effects of Interactive Contact. *Gerontology and Geriatrics Education.* 6:37-42, 1986.

References (Continued)

Mullins LC and McNicholas N. Loneliness Among the Elderly: Issues and Considerations for Professionals in Aging. *Gerontology and Geriatrics Education*. 7(1):55-65, Fall 1986.

U.S. Department of Health and Human Services, National Institute on Aging. *What Is Your Aging I.Q.?* Washington, DC, November 1986.

National Coalition of Hispanic Health and Human Services Organizations (COSSMHO). *Delivering Preventive Health Care to Hispanics*. Washington, D.C. 1988.

National Organization for Victim Assistance. Domestic Abuse of the Elderly. *NOVA Newsletter*. 8:1-6, October 1984.

National Organization for Victim Assistance. The Elderly Crime Victim. *NOVA Network Information Bulletin*. 2:1-8, September 1985.

Pillemer K and Finkelhor D. The Prevalence of Elder Abuse: A Random Sample Survey. *The Gerontologist*. 28: 51-57, 1988.

Pruchno R and Resch N. Husbands and Wives as Cargivers: Antecedents of Depression and Burden. *The Gerontologist*. 29:159-165, 1989.

Rodin J. Aging and Health: Effects of the Sense of Control. *Science*. 33:1271-1275, September 1986.

Rosencranz H and Nevin TA. Factor Analysis of Attitudes. *The Gerontologist*. 9:55-59, 1969.

Steinmetz S. *Duty Bound: Elder Abuse and Family Care*. Newbury Park, CA: SAGE Publications, Inc., 1988.

The New York City Department for the Aging. *STAY WELL: A Health Promotion Program for Older Adults*. November 1988.

Turpie ID, Patterson C, Chalklin LW, Bayne R, Roy J, Newfeld C. The McMaster Model for Geriatric Undergraduate Experience. *Gerontology and Geriatrics Education* 6(4):59-67, Summer 1986.

Warner RW. Improving Communication With the Older Patient: Overcoming the Physical Barrier of a Hearing Loss. *Special Care in Dentistry*, 6(1): 15-17, 1986.

Wood J. Communicating with Older Adults: Cultural and Ethnic Considerations. In the Ohio Valley Appalachia Regional Geriatric Education Center, University of Kentucky *Developing Leadership in Geriatric Education: Proceedings*. 1988.

Woodruff J, Donnan H, and Halpin G. Changing Elderly Persons' Attitudes Toward Mental Health Professionals. *The Gerontologist*. 28:800-802, 1988.

Wynd C. *Psychosocial Aspects of Aging*. Columbus, OH: The Ohio State University, 1981.

III. Training Content

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (45 minutes)	SOCIETY'S PERCEPTIONS OF THE ELDERLY
1. Examine society's perceptions of the elderly in view of a youth-oriented culture.	Many of us have negative feelings about getting older. Attitudes can have a great influence on the quality of life. • Society's perceptions of an individual as a member of a group not only shape the way society treats the person, but also influence a person's feelings about himself or herself. • How a person feels about the things that happen to him or her often affects day-to-day functioning.
Handout: The Little Boy and the Old Man	• This poem highlights how society often treats elderly people as it treats children. Public health professionals should address the psychosocial needs of the elderly since physical health and well-being are directly linked to psychosocial factors. Therefore, we will address the following psychosocial issues in this session: • Society's perceptions of the elderly. • Attitudes of health care providers regarding the physical and mental health needs of the elderly. • Emotional responses of the elderly to the process of aging. • The effects of victimization on the elderly. To examine society's perceptions of the elderly, we must view them in light of our heavily youth-oriented culture. • The post-World War II baby boom resulted in a focus on the attributes of youth (Grady, 1987). • The baby boom generation has demanded services and resources to meet their needs; it's going to be interesting to watch what happens to society as the baby boomers age.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- However, currently, due to their numbers and the power that their size commands, the demands of this cohort receive a positive response:
  - Books and magazines target young readers, with print and size more suitable for their eyesight than for older persons (Gibbs, 1988).
  - Technology and design provide equipment, gadgets, and clothing for the young, with buttons, knobs, and other devices geared toward the dexterity of young users.
  - Even traffic lights are timed for the walking pace of the younger, and not of elderly, pedestrians.

It is no wonder that the elderly feel useless and ignored in a society that values productivity and youthfulness.

- Mandatory retirement laws, and societal pressure to retire where these laws do not exist, impel the elderly to be no longer productive in employment.
- Society's negative messages about aging become internalized by many members of this population.

To understand how this perception of a useless, ignored older person, and its internalization by the elderly, evolved, it may be useful to focus on the distinctions between biological, psychological, and social aging.

Overhead: Perceptions of the Elderly

- Biological Age
- Psychological Age
- Social Age

- *Biological age* refers to the length of time a person is alive and how much longer he or she will be able to live.
- *Psychological age* involves a person's responses to the demands of living; it includes such considerations as coping and adapting mechanisms.
- *Social age* is related to society's expectations for a person's behavior, based on his or her age.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

It is the social age of individuals that receives much attention by society.

- The elderly are expected to act in a certain way.
- These expectations affect the way the older adults feel about themselves, as well as their treatment by others, including their health care providers.

There is a tongue-in-cheek checklist that appears every so often entitled "How to Know You're Growing Older":

- Everything hurts, and what doesn't hurt -- doesn't work.
- Your little black book contains names ending in M.D.
- You get winded playing chess.
- You join a health club, and don't go.
- You're still chasing women, but can't remember why.
- You look forward to a dull evening.
- You turn out the light for economic, rather than romantic reasons.
- You sit in a rocking chair, and can't get it going.
- Your knees buckle, and belt won't.
- Dialing long distance wears you out.
- Your back goes out more than you do.
- You sink your teeth into a steak, and they stay there.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Ageism • Deep-seated uneasiness of young and middle-aged. • Distaste for growing old, disease, and disability. • Fear of powerlessness.	Expectations for the elderly are largely based on stereotypes. • Stereotyping the elderly results in ageism. • Robert Butler identified ageism as another form of bigotry, like racism or sexism, more than twenty years ago (Wynd, 1981; Butler, 1969). - "*Ageism* reflects a deep-seated uneasiness on the part of the young and middle-aged -- a personal revulsion to and distaste for growing old, disease, disability; and fear of powerlessness, 'uselessness,' and death." • Most people who work with the elderly undoubtedly feel that they do not hold stereotypic views of older adults. - However, the myths and negative messages are pervasive and subtle. - An individual can non-consciously accept these messages, and thereby provide inadequate or inappropriate services to elderly clients. To examine the effects of ageism on the elderly, as well as on those who provide care for them, we will participate in a values clarification activity.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Activity. <u>Activity A: Values Clarification,</u> or <u>Activity B: Aging Semantic Differential,</u> or <u>Activity C: Media Images (30 minutes each)</u>: Select Activity A, B, or C. If time permits, you may want to conduct two of the activities (e.g., Options A and C). For Activity A: • Activity A has 2 parts. • <u>For Part 1</u>: - In an open area of the room, label the left side as the area representing "totally disagree." Label the right side as "totally agree." - After each statement, when participants have taken their places along the continuum, ask several to answer individually the question: "Why did you respond as you did?"	VALUES CLARIFICATION (OPTION A) <u>Part 1</u> In this area of the room, imagine a line drawn on the floor. This end of the line (the left) represents your total disagreement with a statement. The other end (the right) represents your total agreement with a statement. The line will form a continuum of disagreement/agreement. As I read a statement to you, stand on the line in a place that best represents your feeling about the statement. 1. I think old age is more disabling than alcoholism. 2. I think old age is more disabling than deafness. 3. Everyone becomes senile if he or she lives long enough. 4. Depression is a serious problem for the elderly. 5. It is difficult for the elderly to continue the work they did during their later middle years because of illness or disability. 6. A rapidly changing society requires individuals to be very flexible. Inflexibility is a trait of most older persons, so "keeping up with society" is difficult for them. 7. Confusion accompanies old age. 8. A high proportion of the elderly must accept financial support from their children. 9. A high proportion of the elderly are seldom bored. 10. The elderly are more set in their political and social attitudes than are younger people.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Activity A (Continued) • <u>For Part 2</u>: - For this part of the activity, participants will select the answer that best represents their feelings and stand in the appropriate area. - Label 3 areas of the room as A, B, C. - After each statement, when people have taken their places, ask: "Why did you respond as you did?"	<u>Part 2 (Activity A, continued)</u> For the next activity, we will label areas of the room as A, B, and C. I will read a series of statements for which the answers are multiple choice. Stand in the area that best represents your feelings. 11. Older people: A. Become increasingly preoccupied with themselves, and decreasingly interested in persons and objects. B. Benefit society by withdrawing and providing an orderly transition of power from older to younger members. C. Maintain past levels of activity and lifestyle, and have the same psychological needs as they did throughout youth and middle age. 12. If I were hiring an individual for work that requires skills in policy development and planning, with all other factors being equal, I would most likely hire: A. A person in his or her early twenties. B. A person in his or her thirties or forties. C. A person more than 60 years of age. 13. If I were hiring an individual for work that requires skills in perception and reaction speed, with all other factors being equal, I would most likely hire: A. A person in his or her early twenties. B. A person in his or her thirties or forties. C. A person more than 60 years of age.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	14. If I were hiring an individual for work that requires transporting clients, with all other factors being equal, I would most likely hire: A. A person in his or her early twenties. B. A person in his or her thirties or forties. C. A person more than 60 years of age. 15. If I were hiring an individual for a position in which a rigid and cantankerous personality would not be appropriate, I would not want to hire: A. A person in his or her twenties. B. A person in his or her thirties or forties. C. A person more than 60 years of age.
Activity: Group Response (10 minutes): Ask several participants to respond to each question.	Questions for Quick Response: • Generally, why did you respond as you did for the questions in this activity? • How do you feel about the choices you made? • What did you learn about your feelings toward the elderly?
For Activity B: • Distribute the handout, The Aging Semantic Differential. • Ask participants to complete it in 15 minutes. • Then, ask several participants to share their responses with the group.	THE AGING SEMANTIC DIFFERENTIAL (OPTION B)

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
For Activity C: • Obtain videotape copies of television advertisements and/or segments of television shows that depict the elderly. These may be available from a local advertising agency, public relations firm, or television network. • Discuss responses to the Question for Discussion.	MEDIA IMAGES (OPTION C) Question for Discussion: • What image of the elderly does the media portray? As you view the videos, identify examples of the elderly as: • Progressive/old-fashioned • Productive/unproductive • Flexible/inflexible • Busy/idle • Cooperative/uncooperative • Optimistic/pessimistic • Self-reliant/dependent • Other characteristics.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (30 minutes)	AGEISM DEBUNKED
2. Identify the myths and misconceptions about the elderly in order to replace them with facts.	Robert Butler has identified four myths about the elderly (Wynd, 1981; Butler, 1969):
[After completing one or more of the optional activities above, conduct a large group discussion in which you debunk the myths about aging and the elderly, and replace misinformation with facts about the aging process. Use the points in the right column to begin the discussion.]	• Myth of unproductivity: The elderly are devalued because it is perceived that they cannot hold a job due to illness, disability, or forced retirement.
Overhead: Myths • Unproductivity • Inflexibility • Senility • Serenity	• Myth of inflexibility: It is perceived that the elderly cannot adapt to change and they cling to older methods and knowledge.
	• Myth of senility: It is perceived that many elderly have irreversible senility, while they actually may be suffering from anxiety, depression, or physical illness.
	• Myth of serenity: It is perceived that the elderly fill their days with relaxation and recreation, ignoring the reality of stress due to physical illness, chronic disability, and/or grief over losses.
Handout: Debunking Myths about Aging	
Activity. Group Discussion (5-10 minutes): Conduct brief discussion about myths surrounding aging.	Questions for Discussion: The elderly are often thought of as sitting and rocking in their chairs ..... • What social themes/perceptions distort the aging process? • What are other prevalent myths or fears about aging?

Other myths have no basis in fact, as well, and can be disproved (Grady, 1987):

- Only 1% of the incomes of older persons is provided by relatives or friends.
- Elderly individuals are four times as likely to give regular financial assistance to their children and other relatives as they are to receive it (Louis Harris and Associates, 1986).
- Less than 3% of persons 60 to 70 years of age develop the symptoms of organic brain disease.
- 20% of persons 90-to-100 years of age show signs of organic brain disease.
- Drivers over 65 years of age have fewer automobile accidents than drivers younger than 65, and much lower accident rates than drivers under 30 years old.
  - The highest accident rates are for young males in their 20s.
  - The perception of older drivers as safe drivers is controversial, in part because there is a need to separate the statistics of the young-old and the old-old: the old-old have accident rates almost as high as those for young males.
  - Social perceptions also distort the picture: one of the problems is the overreaction of society when an older person is involved in an accident.
- Despite declines in perception and reaction speed under laboratory conditions, older workers in actual working conditions:
  - Generally perform as well as young workers.
  - Have less job turnover.
  - Have fewer accidents.
  - Have less absenteeism than younger workers.
  - Are typically more mature and reliable.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- While older people tend to become more stable in their attitudes, they do change and adapt to many major events in their lives (retirement, children leaving home, widowhood, moving to new homes, serious illness); in some respects, this involves more change and adaptation than required of younger people.

- Political and social attitudes of the elderly shift with those of the rest of the society, although at a somewhat slower rate than younger persons.

- Many older persons report that they are not lonely:

  - They have close relations nearby who they visit.
  - They spend much time socializing with friends.
  - They participate in religious or voluntary organizations.

- Most older people live near their children and visit them often (DHHS, 1986).

  - Nevertheless, there is a social perception that the elderly have been dumped.

Activity. Group Response (2 minutes):

Ask for a show of hands in response to each question.

Questions for Quick Response:

- How many of you saw your parents within the last week?
- How many talked with them within the last week?
- How many saw or talked with parents within the past 24 hours?

  - One national survey indicated that 60% of respondents had seen their parents within 24 hours of the survey, while 80% had seen them within the preceding week.

- Intellect is maintained or improved as people grow older.

  - People do not grow stupid.

  - For the most part, verbal intellect continues or even improves.

- Personality does not change with age; the rigid and cantankerous old person is a stereotype.

The later years can be a productive, useful time of life.

- It is ageism, and its attendant social definition of aging, that impedes this productivity and usefulness.

- Negative social definitions have ramifications for the elderly's physical and mental health. For example (Hickey, 1980):

  - The expectation is that older people move carefully, slowly and without sudden effort.

  - Therefore, the elderly are often prescribed "rest and no undue exertion" for their illnesses.

  - For some illnesses, this is uncalled for, and can be counterproductive to recovery.

  - The elderly who are seen as not resting or as exerting themselves, such as those who have taken up jogging or aerobic exercise, are often described as "cute" -- their feat is regarded as a phenomenon; in fact, it's neither a feat, nor a phenomenon -- but a normal and healthy approach to aging.

  - In the area of mental health, it is expected that the elderly have reached a point in their lives in which they should "bask in their 'survivorship' status" and be satisfied with what they have already accomplished.

  - Positive mental health, however, most often requires involvement in stimulating activities.

  - Uninvolvement contributes greatly to the deterioration of mental health, which could lead to deterioration in physical health, as well.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	It is important for public health professionals to recognize their own beliefs in ageism and identify ways to change their misconceptions in order to provide appropriate services. It is also important for public health professionals to examine the health care delivery system to ensure that ageism is not leading to inappropriate and detrimental care for the elderly.
Overhead: The Health Care Delivery System • Prescribe inappropriate treatments. • Limit the elderly's control of their activities. • Raise few psychosocial issues. • Have bias regarding services younger patients don't require.	<u>The Health Care Delivery System</u> The health care delivery system is greatly affected by how providers and planners view the elderly. The example cited earlier of "rest and no undue exertion" is not an anomaly in health care for the elderly. Health care providers can prescribe other inappropriate treatments, or not prescribe specific treatments, based in part or whole on their perceptions of the elderly. For example: • Negative attitudes of psychiatrists, surgeons, and internists toward elderly patients can lead to inappropriate physical and mental health care (Ahmed, et al., 1987). - Surgeons have been found to discourage elderly patients from undergoing mammoplasty for sagging breasts, despite a patient's desire for relief from back pain and/or wish to look better. - Under some circumstances, such attitudes can become the basis of decision making bordering on ethical issues as to "who gets care" and "whether care should be provided". • There are detrimental effects on the health of older people when their control of their activities is limited. - For example, we know that interventions that enhance options for control by nursing home patients promote health (Rodin, 1986).

- One of the major fears of older people is that they are going to go into a nursing home and lose control of their environment and their choices.

- Patients and doctors raise fewer psychosocial issues in interviews with older patients than with younger patients (Greene, et al., 1987).

  - It is as important for the elderly to have their emotional needs addressed as it is for younger persons.

- Mental health professionals often assume that an old person's concerns about confusion are due to his or her age, and therefore such concerns are not taken seriously (Grady, 1987).

  - The same concerns receive a different response when a client is young.

  - At the same time, older persons are often very distressed by episodes of forgetfulness or confusion because they are very fearful of Alzheimer's Disease, which has become such a "buzz word".

In addition to the effects of ageism, health care providers may be biased against the elderly because they are called on to provide services for older adults that their younger patients do not require, such as:

- Spending longer periods of time with older patients to discuss a diagnosis, the prognosis, and medication administration.

- Tending to hygiene needs that the elderly patient can no longer perform on his or her own.

To address health care practitioner bias against the elderly, we will use three skits in which physician-patient interactions are the focus.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
ROLE PLAY/DISCUSSION (60 minutes)	COMMUNICATIONS BETWEEN PHYSICIANS AND PATIENTS

3. Identify ways that public health professionals can help health care practitioners understand the effects of bias against the elderly.

Activity/Handout. Role Play (30 minutes):

Review the handout, Communications between Physicians and Patients--Scripts. Select volunteers for three skits and give to each volunteer the handout that describes his or her character and the action. After each skit, review participants' responses to the Questions for Discussion.

- Skit 1: Ask *three* participants to volunteer as performers . Give each volunteer a copy of the script. Describe the setting to the audience.
- Skit 2: Ask *two* participants to volunteer as performers. Give each volunteer a copy of the script. Describe the setting to the audience.
- Skit 3: Ask *two* participants to volunteer as performers. Give each volunteer a copy of the script. Describe the setting to the audience.

At the conclusion of this activity, distribute copies of the handout to all participants.

Questions for Discussion:

Question for each patient: How did you feel as an elderly patient in your situation?

Question for each physician: How did you feel as a physician caring for an elderly patient in your situation?

Questions for the total group: As public health professionals, how can you help the health care practitioners in your community understand the effects of bias against the elderly? How can you help elderly clients in your community develop the skills necessary to communicate their needs to their health care providers?

Communication Problems Associated with Racial/Ethnic Differences

Problems in communication between physicians and their elderly patients can be exacerbated by misunderstandings based on racial or ethnic differences (Wood, 1988).

- Older members of racial or ethnic groups may be suspicious of health service delivery systems and may fail to provide valuable information to health care professionals.
  - For example, 80 percent of Black participants in a Michigan home health care study indicated that their physicians were unaware of their use of home remedies.
- Also, conflicting views of a patient's illness can create communication problems between health care providers and elderly patients.
  - Illness in certain Spanish-speaking cultures may be either natural or supernatural in origin.
  - In Black folk medicine, diseases may be viewed as based on physical causes, or as the result of sin or the willful violation of sacred beliefs
  - Folk health care, in Southeast Asian, Hispanic, Black, Native American, and Appalachian cultures, is rooted in philosophical and religious beliefs.
  - In these instance, elderly patients may feel that professional medical treatments serve no purpose, or that simultaneous treatments by a physician and a folk healer are necessary.
- Discussions between physicians and elderly patients can be difficult when a new diet is prescribed.
  - Older ethnic group members frequently choose to continue eating ethnic foods, despite warnings about possible ill effects.
- In addition, differing styles of communication among racial and ethnic groups can affect how information is received by elderly patients.

- Physical distance between a speaker and listener is often culturally defined: Sitting or standing too close or too far away during a discussion may cause discomfort or tension.

- While eye contact during communication is preferred by Anglo-Saxon American groups, it may be inappropriate in Asian, Native American, and Black cultures.

- Also, discussions regarding assistance to elderly patients by family caregivers may or may not be readily accepted, dependent on the role of the family in various racial and ethnic groups (Crossman, 1988).

  - People of Polish and Italian descent tend to view the family as the centers of social life; Blacks and Irish Americans have a less strong view of the family.

  - People of Scandinavian descent may not be as family-centered as the other groups mentioned.

In light of these and other racial and ethnic differences, it is important for health care providers to keep in mind the following when caring for elderly patients who are members of different racial or ethnic groups (Wood, 1988; COSSMHO, 1988):

- Acceptance of, and respect for, cultural differences is key to quality interactions between health care providers and patients.

- Empathy and sensitivity to cultural differences are necessary components of communication -- perhaps more important than having care providers of the same racial/ethnic backgrounds as their patients.

- At the same time, culture should not be seen as fully determining an individual's behavior.

- Health care providers need to know what their patients are doing away from the medical setting: specific questions rearding health practices and symptoms must be asked.

- The "bottom line" is to respect and affirm patients' efforts to stay well and educate them in their own terms.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Activity: Group Response (15 minutes): Ask several participants to respond to the question.	Question for Quick Response: • What is the public health role in increasing health care providers' understanding of and sensitivity to racial and ethnic differences?. • What is the public health role in assisting health care providers to communicate more effectively with hearing-impaired elderly?

Communication and the Hearing-Impaired Elderly

An additional barrier to effective communication between health care providers and the elderly is presented when an elderly individual suffers a hearing loss.

- Sixteen million Americans have total or partial hearing loss and, of these, 6.5 million are older than 65 (Dunkle et al, 1984).

- While some elderly individuals have had impaired hearing for all or most of their lives, and never attained complete speech, others have suffered damage to linguistic and auditory abilities after a stroke, or have age-related hearing changes.

With age-related hearing loss, there is a decrease in sensitivity for higher frequencies.

- When the higher frequency portion of spoken words becomes inaudible, consonant sounds cannot be heard.

  - The sounds s, f, p, t, k, ch and sh are particularly difficult.

  - Therefore, shouting is not an effective means of communication with elderly who suffers age-related hearing loss.

There are a number of devices and strategies that can help health care providers communicate with the hearing-impaired elderly (Warner, 1986):

- Written instructions, with large lettering, can back up the important aspects of conversation.

- While hearing aids assist individuals who have auditory losses, the health care provider must remember that these devices are nondirectional.

  - Lengthy conversations should be conducted in an area with little background noise.

- Hearing devices, in which the speaker talks directly into a microphone, permit the listener to receive information via headphones or an earphone.

  - These devices eliminate the nondirectional sound problems of hearing aids.

- Teletypewriters (TDDs) allow two individuals to type messages on a keyboard.

- Elderly individuals who have had hearing losses for many years may use sign language as their primary method of communication.

  - Knowledge of sign language, or the presence of an interpretor, will assist health care providers in communicating with elderly persons who sign.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (15 minutes).	EMOTIONAL RESPONSES OF THE ELDERLY TO AGING
4. Identify the changes that the elderly confront in their lives. [Note to Instructor: Script cards should be prepared in advance.]	People cope with many changes throughout their lives. • Health care providers are called upon to alleviate or lessen the symptoms of disease, with a primary focus on physical problems. • However, emotional responses to life's changes and to debilitation are often ignored or deemed not critical. • They are sometimes dealt with secondarily, misinterpreted, or given inadequate attention by care providers. Elderly individuals are confronted with many major changes, including their acute and chronic care needs, that greatly affect their personal lives.
Activity. Script Cards (5 minutes): Ask a participant to read the quotes from prepared script cards, after each statement of the instructor. • Bulleted items are the statements that should be made by the instructor. • Numbered items should be prepared in advance on 10 separate index cards.	These changes bring about emotional reactions to the effects of aging, such as: • Sadness over lifestyle changes brought on by failing health and physical limitations. 1. "My daughter just moved to a new home -- I wish I could climb stairs so I could see the bedrooms." • Fear of losing control of one's life. 2. "I'm your father -- stop treating me like I'm an infant!" • Agitation with a culture heavily focused on youth. 3. "Why do all of the TV commercials have loud rock music - they certainly aren't aimed at me!" • Confusion about expectations not met. 4. "When I was a young woman, we respected and cared for our older relatives; we didn't call them 'retired' and ignore them."

- Depression brought on by the deaths of friends and relatives.

5. "I can't even use my address book anymore to look up a phone number -- every page has someone on it that I miss very much."

- Dejection over drastic changes in roles.

6. "I'm still a productive person! Why did they make me retire?"

- Isolation brought on by today's mobility.

7. "I wish my children and grandchildren didn't live so far away. My old friends are even scattered everywhere!"

- Frustration over the costs of health care.

8. "What good is Medicare if I die before I can save enough money to afford the health care I need?"

- Resignation to a lifestyle of financial problems perhaps not experienced before.

9. "When I was working, I might not have been a rich person, but I could get by. It's impossible for me to stretch my Social Security check as much as I need to stretch it now."

- Anxiety about the future.

10. "If I can't cope with what's happening to me now, what will I do if I get really sick?"

We have addressed society's perceptions of the elderly, the effects of ageism on older persons' physical and mental health, and some approaches for minimizing biases against the elderly through enhanced communications between providers and their older clients.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Another aspect of the public health role involves interventions to or support for the older persons' emotional reactions to aging and their normal and dysfunctional responses to crises.

The role for public health in providing these interventions is two-fold.

Overhead: Intervention of Public Health Professionals

Identify mental health needs in order to:

- Refer for treatment and services.
- Eliminate or reduce feelings of isolation.

- Because of the many acute and chronic care services provided by public health, opportunities for care providers to identify mental health needs are numerous.
  - Referrals for appropriate treatment and services can be made by nurses, home health aides, and others who regularly interact with elderly clients.
  - Feelings of isolation can be eliminated or reduced by the attention public health professionals provide to the older adult's mental health needs.
  - Often older people are not referred to mental health providers, and they are often reluctant to refer themselves.

We must remember that change is a part of life (Kemper, et al, 1986).

- We change physically -- from infants to toddlers to pre-schoolers to adolescents to adults.
- Our roles change, as we are at times dependent, independent, and interdependent.
- Relationships change, as we move in and out of the lives of others, and others enter and leave our lives.
- Each change -- whether perceived as good or bad -- is a crisis in our lives.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Public Health Role • Normal reactions to crisis • Dysfunctional reactions to crisis • Symptoms of organic brain disorders	The changes, or crises, we experience in life are complex. • Expressing a variety of feelings as we deal with these changes is appropriate -- and normal. Public health professionals can assist the elderly as they experience life's changes and their attendant emotions in a variety of ways: • By recognizing the normal reactions to crises and providing supportive programs, as well as by making referrals to groups that help the elderly cope with crises. • By recognizing dysfunctional reactions to crises, and providing programs and making referrals for those elderly whose day-to-day functioning is impaired by their response to crisis. • By recognizing the symptoms of organic brain disorders, differentiating between these and emotional responses to change, and providing programs and making referrals for those elderly with these symptoms.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (15 minutes)	**RESPONSES TO CRISES**
5. Identify normal and dysfunctional responses of the elderly to crises, as well as the symptoms of depression and of organic brain disorders.	What do you think are some of the greatest crises that the elderly experience? • Interestingly, loss of health has a big effect on an individual's sense of well-being.
Overhead: Grief • To cope with the loss of loved ones. • To cope with changes in abilities due to poor health. • To cope with establishing new roles and relationships as what was once familiar undergoes change.	Most people respond to life's crises by grieving. • Grief is a normal and healthy way to cope with crises. - To cope with the loss of loved ones. - To cope with changes in abilities due to poor health. - To cope with establishing new roles and relationships as what was once familiar undergoes change.
Overhead: Stages of Grief • Shock and denial. • Guilt, anger, and bargaining. • Adjustment and acceptance.	Most individuals grieve according to the same pattern, although the length of time spent in each stage of grief varies from person to person. The stages of grief include: • Shock and denial: - Disbelief. - Changes in eating and sleeping habits. - Sadness or depression. - Idealization of a perfect past and a hopeless future. • Guilt, anger, and bargaining: - Blaming oneself for a loss. - Blaming someone else for a loss. - Hostility, crying.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- Adjustment and acceptance:
  - Realizing that the past did have its faults and the future does hold hope.
  - Recognizing and adjusting to the loss.
  - Making appropriate changes in one's life and reconnecting with the world.
  - Some people resolve grief much more quickly than others.
  - Grieving is a process that may take a long time and, in some cases, may never be resolved.

It is important for the elderly to have opportunities to express grief for their losses.

- In the normal expression of grief, individuals experience denial, guilt, adjustment, and other emotions as they continue their day-to-day functioning.

Overhead: Public Health Support

- Identify clients experiencing grief.
- Listen to their expressions of grief.
- Provide support to strengthen coping mechanisms.
- Network to maximize supportive activities.

- These feelings may make eating, sleeping, working, tending to household chores, and other activities more difficult, but they should not totally alter an elderly individual's independent or interdependent lifestyle.

Public health professionals can assist by:

- Identifying elderly clients served by public health programs who are experiencing grief.
- Being good listeners for elderly clients as they express anger, sadness, hopelessness, loneliness, and adjustment.
- Providing support groups and other opportunities in which the elderly can deal with grief.
- Establishing and maintaining networks with other public and private agencies that provide programs for the elderly in order to make referrals, provide transportation to activities, and implement other interventions, as appropriate.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Public health professionals need to recognize dysfunctional responses to coping with crises, as well as the symptoms of organic brain disorders, in order to make referrals, establish and maintain care and support programs, and collaborate with other public and private agencies, as appropriate.

Depression

Depression is the most common emotional problem for all individuals, regardless of age (Grady, 1987).

- The likelihood of becoming depressed increases with advanced age.
- Depression can involve changes in a person's ability to perform everyday tasks.
- It is a condition that often is mistaken for organic brain disorders that result from permanent brain cell damage.

Overhead: Symptoms of Depression

- Feeling "blue".
- Fatigue.
- Concern for the increased difficulty of doing the things one usually does everyday.
- Constipation.
- Difficulty in falling asleep.
- Diminished appetite.
- Restlessness.
- Weight loss.
- Early morning waking.
- Persistent feelings of loneliness, worthlessness, and helplessness.
- Inability to enjoy activities.
- Suicidal thoughts.

The initial symptoms include:

- Feeling "blue"; feeling sad.
- Fatigue.
- Concern for the increased difficulty of doing the things one usually does everyday.
- Constipation. (This is hard to sort out for older people because it's a common artifact of aging, as are alterations in sleeping and eating patterns.)
- Difficulty in falling asleep.
- Diminished appetite.
- Restlessness.

As the depressive state continues, the symptoms may include:

- Weight loss or weight gain.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- Early morning waking, or an inability to get going in the morning.
- Persistent feelings of loneliness, worthlessness, and helplessness.
- Inability to enjoy activities.
- Suicidal thoughts.
  - White men over 65 account for 25% of all suicides (their favorite instrument is a gun).
  - There is a very high rate of suicide success among the elderly.
  - Unlike teenagers, often the elderly give no prior indication or advance warning of a desire to commit suicide.

Overhead: Categories of Depression

- *Reactive* -- in response to an event or stressful situation.
- *Endogenous* -- caused by internal organic factors.

There are two main categories of depression:

- *Reactive depression* occurs in response to an event or stressful situation and it's often seen among older people.
  - An episode may be brief.
  - Family and friends can assist an elderly individual cope with the cause of depression.
  - Psychotherapy may be called for if this depression persists.
- *Endogenous depression* is usually caused by internal organic factors, such as biological or chemical changes.
  - This form of depression is worse in the morning.
  - It often includes physical complaints.
  - Medication and psychotherapy are necessary to treat this form of depression.
- It's sometimes difficult to distinguish between reactive and endogenous depression; some studies have shown that people suffering reactive depression will improve/"get better" within 6 months with or without psychotherapeutic support.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead: Symptoms of Alzheimer's Disease

- Changes in feelings such as the onset of despair, irritability, or apathy.
- Inability to remember recent events, facts, names, or places.
- Difficulty in solving simple problems or attending to a task.
- Confusion about time, place, what to do.
- Getting lost in familiar surroundings.
- Exercising poor judgement in acting, dressing, hygiene, decision making.
- Changes in eating, sleeping, or exercising.

Alzheimer's Disease

Early stages of Alzheimer's Disease can be mistaken for emotional or behavioral problems.

Alzheimer's Disease accounts for more than 50% of all organic brain disorders (Grady, 1987).

An individual with Alzheimer's Disease may have the following symptoms:

- Changes in the way he or she feels, such as the onset of despair, irritability, or apathy.
  - An early symptom may be a change in personality.
- Inability to remember recent events, facts, names, or places.
- Difficulty in solving simple problems or attending to a task, such as balancing a checkbook or playing bridge.
- Confusion about time, place, what to do.
- Getting lost in familiar surroundings, or difficulty in learning simple things about a new environment.
- Exercising poor judgement in acting, dressing, hygiene, decision making.
- Changes in eating, sleeping, or exercising.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead/Handout: SPMSQ	When these symptoms are persistent in an elderly individual, a comprehensive assessment must be completed. Care providers can use a tool such as the Short Portable Mental Status Questionnaire (SPMSQ) as a preliminary step in determining whether a referral should be made (DHHS, 1984; Kahn et al, 1960). The MSQ includes the following questions: • Where are we now? • Where is this place located? • What is today's date? • What month is it? • What year is it? • How old are you? • When is your birthday? • What year were you born? • Who is President of the United States? • Who was the President before him? The questions can be asked while providing care for an individual. The care provider should record the responses, as well as any indications of hostility, evasiveness, or confabulation. A score of: • 9 to 10 indicates no confusion. • 6 to 8, slightly confused. • 3 to 5, moderately confused. • 0 to 2, seriously confused.

• Where are we now?
• Where is this place located?
• What is today's date?
• What month is it?
• What year is it?
• How old are you?
• When is your birthday?
• What year were you born?
• Who is President of the United States?
• Who was the President before him?

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (45 minutes)	VICTIMIZATION
6. Identify three forms of victimization of the elderly: domestic abuse, scams, and other crimes.	Public health professionals should also be aware of the impact of real and perceived victimization of the elderly, recognize its symptoms, and provide appropriate interventions. While the elderly are less likely to become victims of crime than younger individuals, their vulnerability to the consequences should they become victimized leaves many elderly more concerned about crime than any other aspect of their lives (NOVA, 1985).
Overhead: Injuries Suffered by Victims of Crime • Physical • Financial • Psychological	• Three injuries that victims of crime may suffer are: - Physical injury. - Financial injury. - Psychological injury. • The increased infirmities of old age add to an elderly individual's vulnerability to physical injury. - Due to the fragility of their bones, falling or being pushed during a physical assault can result in permanent disability. - Health problems can be exacerbated by the consequences of non-physical crimes as well; for example, if an individual's eyeglasses are stolen or broken during a burglary, his/her normal daily activities may be greatly hampered. • The limited incomes of many elderly individuals could greatly be affected by financial injury. - Physical injuries can translate into costly therapeutic or rehabilitive treatment. - A robbery of $50 could mean that an elderly person is left with insufficient funds to purchase food, medicine, or other necessities.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• Psychological injury occurs when an unusual trauma is experienced. - Most victims suffer discomfort and stress as a result of any kind of crime. - The stages of crime-stress reaction are often more severe in the elderly. <u>Domestic Abuse</u> Abuse of the elderly within the home is a problem that is largely hidden from public awareness and poorly understood by service providers (NOVA, 1984). In the late 1970s, research in this area began to focus on the problem of domestic abuse. • This was followed by Congressional hearings and the First National Conference on Abuse of Elderly Persons in 1981. • Subsequently, a number of states enacted adult protective service laws and mandatory reporting requirements. Despite these efforts, an impediment to understanding elder abuse is the absence of a widely accepted definition of the problem.
Activity. <u>Quick Response (5 minutes):</u> Ask for participant response.	Quick Question: • How would you define elder abuse?
Overhead: Elder Abuse • Physical abuse • Negligence • Financial Exploitation • Psychological abuse • Violation of Rights • Self-Neglect	The House Select Committee on Aging has adopted the following categories of elder abuse (NOVA, 1984): • Physical abuse: - Violence resulting in bodily harm or mental distress - Sexual abuse - Restrictions on freedom of movement - Murder. • Negligence: - Breach of duty or carelessness that results in injury or violations of an older person's rights, such as failure to provide medicine or safe and sanitary living conditions.

- Financial exploitation:
  - Theft or conversion of money or property belonging to an elderly person by force or deception.
- Psychological abuse:
  - Inducing fear or humiliation, such as by threats of violence or involuntary placement in a nursing home.
  - This abuse usually is accompanied by other forms of abuse.
- Violation of rights:
  - Breaching the older person's legal rights, e.g., providing an informed consent signature approving medical treatment without being the legal guardian of the individual who will be treated.
- Self-neglect:
  - Self-inflicted harm or failure to care for personal needs brought on by the older individual's diminished abilities and the lax attitudes and behavior of relations or other caretakers.

It is estimated that from 500,000 to one million elderly are abused each year.

- One out of six cases is reported.
- Elder abuse is hidden from outside scrutiny.
  - Professionals fail to detect the problem
  - Professionals fail to report the problem.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: High-Risk Elderly • Female • Advanced age • Dependent • Problem drinker • Intergenerational conflict • Internalizes blame • Excessive loyalty • A history of past abuse • Stoicism • Isolation • Impairment • Provocative behavior	• Most often the persons committing elder abuse are members of the victim's own family. • High-risk elderly include those with the following characteristics (Kosberg, 1988): - Female - Advanced age - Dependent - Problem drinker - Integenerational conflict - Internalizes blame - Excessive loyalty - A history of past abuse - Stoicism - Isolation - Impairment - Provocative behavior.
Overhead: High-Risk Caregivers • Problem drinker • Medication or drug abuser • Senile dementia or confusion • Mental or emotional illness • Caregiving inexperience • Economically troubled • Abused as a child • Stressed • Unengaged outside of home • Blamer • Unsympathetic • Lack of understanding • Unrealistic expectations • Economically dependent • Hypercritical.	• High-risk caregivers include those with the following characteristics: - Problem drinker - Medication or drug abuser - Senile dementia or confusion - Mental or emotional illness - Caregiving inexperience - Economically troubled - Abused as a child - Stressed - Unengaged outside of home - Blamer - Unsympathetic - Lack of understanding - Unrealistic expectations - Economically dependent - Hypercritical.

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INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: High-Risk Family Systems • Lack of family support • Caregiver reluctance • Overcrowding • Isolation • Marital conflict • Economic pressures • Intra-family burdens • Desire for institutionalization • Disharmony in shared responsibility.	• High-risk family systems include those with the following characteristics: - Lack of family support - Caregiver reluctance - Overcrowding - Isolation - Marital conflict - Economic pressures - Intra-family burdens - Desire for institutionalization - Disharmony in shared responsibility. In addition to these individual and family characteristics, other causes of elder abuse have been identified. These include (NOVA, 1984): • Stress on the caregiver due to caring for a dependent, perhaps difficult, elderly relative. • Caregivers who are exhausted and anxious, or who have deteriorating health. • Caregivers who feel resentful, frustrated, or angry because of changes they were required to make in their home life or lifestyle due to care demands. It has also been noted that some victims of elder abuse precipitate their own victimization (NOVA, 1984). • Older persons who are self-centered, demanding, or abusive can erode the good will of even the best-intended caregivers.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overheads: Scams Targeted at the Elderly • Con games • Consumer fraud • Health quackery	Scams Targeted at the Elderly Many elderly feel victimized by con games, advertisements, and direct sales approaches targeted to them. Con games are attempts to swindle individuals out of money, property, or other valuables. • Often, con games targeted at the elderly involve withdrawing savings from a bank at the suggestion of a stranger. Consumer fraud is often successful among the elderly, as well. • While a number of services and products may be necessary or useful, far too many cause the elderly to unnecessarily spend their limited finances. Services and products that may victimize the elderly include: • Health insurance programs that, in reality, do not fill the health coverage/financial gaps left by Medicare. • Physical assistance products, such as chair boosts, that may cause further impairment. • Glasses or hearing aids sold by unlicensed salespersons. • Adult diapers for incontinence that should be assessed by a health practitioner. • Contributions to charities that are not legitimate. • Home repair frauds in which the repair person was "just driving by."

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

A form of consumer fraud by which the elderly are often victimized is "health quackery."

- Many products are advertised as miracle cures, most often to treat a condition for which medical science has not yet found a cure.
- Millions of dollars are spent yearly on products and devices advertised as cures for arthritis, baldness, cancer, and insomnia.

Because of these and other possible scams, elderly individuals may feel:

- Frustrated by the many sellers of products who enter their lives.
- Anxiety over spending money only on perceived necessities.
- Mistrust of anyone who tries to help.

The Elderly Crime Victim

As noted earlier, some discomfort and stress occur as a result of victimization for crime victims of all ages.

- 20% of victims exhibit severe stress reactions.
- 5% of victims enter an emotional crisis.
- Elderly victims are viewed as high-crisis risks following a crime due to the extraordinary physical, financial, and/or psychological burdens that crime imposes on them.

Overhead: Crime-Stress Reaction

- Shock and disbelief
- Fear, anger, and depression
- Cataclysm of emotions
- Frustration and confusion
- Reconstruction

The stages of the crime-stress reaction are often more severe in the elderly (NOVA, 1985).

- As with other crises, the immediate reaction may be shock and disbelief.
- In the aftermath of shock, normal reactions include:
  - Fear
  - Anger
  - Depression.

- There is often a cataclysm of emotion:
  - Intense emotions, all experienced at one time.
  - This may lead to frustration and confusion.
- Many victims, particularly elderly victims, do not recover from their victimization.
  - Rather than recover, they must reconstruct their lives in the aftermath of a victimization.

The emotional reactions, together with the need to reconstruct one's life, often are reflected in the sense of helplessness and loss of self-control imposed by the attack and felt by crime victims.

Due to a robbery, burglary, or physical injury sustained during a crime, or for fear that a crime will occur, an elderly individual may undergo intense lifestyle changes, such as:

- Moving to a new, unfamiliar area to escape from crime.
- Inducing calmness with alcohol or drugs.
- Losing the ability to concentrate.
- Staying in bed for a large part of the day.
- Becoming totally housebound.
- Not shopping for food or eating.

A variety of interventions are appropriate to meet the needs of elderly crime victims with these reactions.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Activity. Group Discussion (20 minutes): • Note: It is very helpful to determine in advance the state and local legislation, regulations, or other policies currently operative with respect to victimization of the elderly. • Use flipchart to record responses to Questions for Discussion.	Questions for Discussion: • What are appropriate interventions for dealing with domestic abuse, scams targeted at the elderly, and other crimes against the elderly? • Consider the following possibilities: - Advocacy. - Promulgation of legislation. - Education regarding rights, programs, and services. - Counseling and other support programs. - Others.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
7. Discuss ways that public health professionals can increase the competence of their jurisdiction's personnel in addressing psychosocial needs.	**PLANNING A PROGRAM FOR PUBLIC HEALTH PROFESSIONALS TO IMPROVE SKILLS IN ATTENDING TO PSYCHOSOCIAL NEEDS OF THE ELDERLY** Since appropriate interventions have been assessed, it's possible to identify specific tasks for implementation of these interventions by public health professionals. To do so, look at: • Who these professionals are in your jurisdictions. • Ways to assess their current skill levels. • Ways to improve their competence in meeting the needs of the elderly.

Activity/Handout. Small Group Discussion (30 minutes):

- Ask participants to form groups of six to eight persons.
- Distribute the handout, Planning for Public Health Professionals to Improve Skills in Attending to the Psychosocial Needs of the Elderly.
- Ask participants to spend 20 minutes responding to the handout questions.

In small groups, identify the following for your jurisdictions:

1. Titles of public health professionals who provide care for the elderly and the type of care provided (e.g., nursing, assistance with household tasks).
2. Methods to assess their skills in recognizing the symptoms of emotional problems, organic brain disorders, and victimization.
3. Inservice activities to increase their competence in recognizing and responding to the symptoms of emotional problems, organic brain disorders, and victimization.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Reconvene group. Ask participants the bulleted questions in the right-hand column.	Questions for Discussion • What are the categories of public health professionals in your jurisdictions who can address the psychosocial needs of the elderly? • What types of inservice programs can you provide to help public health personnel recognize emotional problems and organic brain disorders? • What characteristics of your agency will facilitate a program of this kind? • What will hinder your efforts? • How can you overcome barriers to plan and implement such a program?

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
GROUP DISCUSSION (30 minutes) 8. Define community support systems and methods for networking with other agencies. Overhead: Community Support Systems • Preventive systems • Treatment systems • Rehabilitative systems	**ASSESSING MENTAL HEALTH SUPPORT SYSTEMS FOR THE ELDERLY** Public health professionals who are skilled in addressing the mental health needs of the elderly realize that they must coordinate their services with others in the community to make appropriate referrals for assessment and to provide services. Community support systems can serve a variety of functions in prevention, treatment, and rehabilitation (Biegel et al, 1984). • *Preventive systems* can help the elderly by promoting self-esteem and reducing the negative feelings brought about by ageism, isolation, depression, and other stressors. • *Treatment systems* can assist the elderly to follow the treatment regimen established by medical and mental health care providers. • *Rehabilitative systems* can assist the elderly with chronic mental health problems to become reintegrated within the community. In order for these systems to truly meet needs, services must be provided in a way that is culturally appropriate for the populations served. Through a variety of mechanisms and agencies, these systems probably already exist in your jurisdiction(s). Often, comprehensive services are provided by Area Agencies on Aging, mental health centers and social service departments in a municipality, religious and volunteer organizations, and others. These may include: • Adult day care. • Meals on wheels. • Transportation.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• Support groups and counseling. • Consumer education programs. • Health promotion programs. • Others.
Activity. Large Group Discussion (30 minutes): Use flipchart to record responses to Questions for Discussion.	Questions for Discussion • What public and private sector agencies and organizations address the mental health needs of the elderly in your community? • What types of services are provided? • What are the gaps in service provision (e.g., prevention, treatment, or rehabilitation services not addressed; segments of the population's needs not appropriately met; costs for certain services prohibitive for most elderly clients)? • What is the public health role in filling these gaps? • How can you ensure that the services provided (by public health or others) are provided in a way that is sensitive to all cultures (racial and ethnic) represented in your area?

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (60 Minutes)	PROVIDING ASSITANCE TO FAMILY CAREGIVERS

9. Identify streategies that meet the support needs of family caregivers

Overhead: Caregivers of Disabled Elderly

Caregivers of Disabled Elderly

Relationship	% of Care Provided
All relatives, caring for males	84
All relatives, caring for females	79
Men, cared for by wives	33 +
Women, cared for by husbands	10
Adult children, caring for fathers	25
Adult children, caring for mothers	33
Other relatives, caring for men	23
Other relatives, caring for women	35

Source: U.S. Senate Special Committee on Aging. *Aging in America: Trends and Projections (1987-1988 Edition).* U.S. Department of Health and Human Services, 1988.

Friends, spouses, and other relatives provide valuable assistance to elderly individuals with disabling health problems.

Data from the Health Care Financing Administration's 1982 Long-Term Care Survey demonstrated that relatives represented 84% of all caregivers for noninstitutionalized elderly males, and provided 89% of days of care (Senate Special Committee on Aging, 1989).

Similarly, relatives represented 79% of caregivers and provided 84% of days of care for elderly disabled females living in the community.

- More wives than husbands provided care to disabled spouses:
  - More than 33% of all elderly disabled men living in the community were cared for by their wives.
  - Only 10% of elderly disabled women living in the community were cared for by their husbands.
- Children of aging parents were found to be providing care to 25% of elderly disabled men and more than 33% of elderly disabled women.
- Other relatives, such as brothers, sisters, and nieces, represented 23% of all community caregivers for men and 35% for women.

The primary caregiver is generally a spouse, if there is one available and capable (Horowitz, 1985).

When children are caring for elderly parents, daughters play a key role (Crossman, 1988).

- Daughters often assist their elderly mothers in caring for ailing or disabled fathers.

- Adult daughters, and to a lesser extent, daughters-in-law, usually have the caregiving responsibility for widowed older people.

The individuals, other than spouses, to whom most persons turn for assistance in a health crisis are typically middle-aged women who themselves are mothers, and often are grandmothers.

It is also important to note that the family is the source of care preferred by the elderly (Biegel et al, 1986).

- After family, the elderly prefer care by friends and neighbors.

- Formal organizations and people in miscellaneous other categories generally rank last as elderly individuals' choices for caregivers.

Providing care for disabled elderly family members can lead to stress, depression, and burden for family members (Pruchno and Resch, 1989; Kinney and Stephens, 1989).

- This is particularly true when the elderly individual suffers from Alzheimer's disease or a related disorder.

Perhaps the basis for the stress associated with family caregiving is the loss to one's independence when alternative arrangements for care become necessary (Steinmetz, 1988).

- A disruptive transition occurs, for both the elderly individual and his or her adult caregiver.

- Often, the decision to take an elderly parent into one's home is made during a crisis such as hospitalization, serious illness, or death of a spouse.

    - Even when adult children have identified the declining mental or physical status of their parents, action is not taken until the situation is defined as a crisis.

A family's history and structure of relationships are important determinants of its ability to cope with an elderly individual's increasing dependency, especially when the individual is stricken with Alzheimer's disease (Greater New York Hospital Foundation, 1988).

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• For example, a history of marital discord, resentment toward a noncaregiving sibling, or employment and other family responsibilities may increase stress and impact coping abilities.
	Stressors can create conflict, which increases the potential for physical abuse or premature institutionalization.
	• It is important to remember, however, that caregiver stress does not lead to elder abuse in all families.
Overhead: Areas of Concern • Intellectual and physical changes in the patient. • Causes of the disease. • Possible hereditary aspects of the disease. • Loss of financial and emotional resources. • Increased need to provide physical care for an indefinite period. • Increased social isolation. • The need to understand and to explain this illness to the extended family and friends. • The need to identify and access supports.	In family caregiving situations for a person with Alzheimer's disease or other dementias, areas of concern include the following (Greater New York Hospital Foundation, 1988): • Intellectual and physical changes in the patient. • Causes of the disease. • Possible hereditary aspects of the disease. • Loss of financial and emotional resources. • Increased need to provide physical care for an indefinite period. • Increased social isolation. • The need to understand and to explain this illness to the extended family and friends. • The need to identify and access supports -- legal, financial, and emotional.
	Certainly, many of these concerns are valid for caregiving families of elderly individuals with other disabling conditions, as well.
	Family caregivers have identified these tasks as especially stressful or difficult (Clark and Rakowoski, 1983): • Performing basic activities of daily living for the elderly person. • Managing feelings toward other family members who do not regularly help. • Balancing the giving of assistance with responsibilities to other family members. • Interacting with medical, health, and social service professionals.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- Compensating for the emotional drain from constant responsibility.
- Compensating for or recovering personal time.
- Avoiding severe drain on physical strength and health.
- Resolving disappointment over one's performance.
- Making up for or avoiding restrictions on future plans and perspective.

Many families respond to caregiver stress by grieving, feeling "numb," becoming angry and frustrated, or by experiencing guilt, helplessness, or anxiety.

Intevention strategies by public health professionals and others to lessen family burdens are appropriate.

- Intervention with family caregivers has implications for the well-being of the elderly by improving the quality of the caregiver - elderly relationship and by increasing the length of time elderly individuals can be cared for in home settings.

Overhead: Interventions for Caregivers

- Education and training.
- Mutual aid and self-help groups.
- Coordination and formalization of services.

We will examine three types of intervention: education and training, mutual aid and self-help groups, and coordination and formalization of services (Biegel et al, 1984).

Education and Training Programs

Overhead: Education and Training Programs

- Increase caregivers' skills
- Increase knowledge and understanding.
- Gain ability to cope.
- Reduce stress.

Education and training programs focus on increasing caregivers' technical caregiving skills and competency.

- These programs also provide caregivers with increased knowledge and understanding of issues associated with the aging process.
- With increased knowledge and skill, caregivers can gain the ability to cope with their aging family members and learn to reduce stress.

In one training program -- Caregivers Assistance and Resources for the Elderly's Relatives Series (CARERS) -- the following topics are addressed:

- The processes of aging.
- Practical caregiving skills.
- Coping with the inevitable stresses of caregiving.
- Consumer advocacy in contracting for professional services.
- Handling relocation trauma.
- Securing the physical environment.

Another program, Training to Enhance the Informal Support Systems of the Elderly, focuses on increasing knowledge of aging processes and increasing skills in working with the aged.

The As Parents Grow Older (APGO) Program addresses these topic areas:

- Increasing understanding of psychological aspects of aging.
- Chronic illness and behavioral changes with age.
- Sensory deprivation and communication.
- Decision making and alternative living situations.
- Availability and utilization of community resources.
- Dealing with one's situation and feelings.

The Practical Help for Those Caring for an Elderly Person in the Community Program focuses on increasing understanding of and abilities to cope with the caregiving situation.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Mutual Aid and Self-Help Programs • Information • Emotional support • Advocacy • Combination	**Mutual Aid and Self-Help Programs** Mutual aid and self-help groups for the caregivers of the elderly have been established in many communities. • These groups stress information, emotional support, advocacy, or a combination of these. • Some groups are self-directed, and some are led by professional staff as facilitators. The National Supports Program of the Communmity Services Society of New York has identified four areas of need that should be addressed by support programs: • Educational: information about the aging process. • Didactic: skills in the care and maintenance of a disabled older person, and managing interactional family problems. • Emotional: recognition and support of the caring role. • Concrete service: referral and information regarding resources. The Family Support Program of Duke University stresses the importance of a central facility for the maintenance and extension of support groups. This facility can be responsible for: • Disseminating current information. • Providing a telephone hotline. • Stimulating media interest. • Training facilitators. • Evaluating performance.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead: Formalization and Coordination of Family Caregiving

- Caregiving role identified.
- Caregiving role formally delineated in a service contract with a public agency.
- Family's services included in an overall service plan for their elderly relative.

Formalization and Coordination of Family Caregiving

The third intervention strategy providing support for caregivers involves recognition of the role of the family in caring for an elderly individual and coordinating that role with other services.

- The caregiving role is identified and formally delineated in a service contract with a public agency.
- The family's services are included in an overall service plan for their elderly relative.
  - An agency contracts its services to meet gaps in care.
  - The service plan may include payment to family members for the care they provide.

The Individual Services Component of the Natural Supports Program of the Community Service Society of New York has provided counseling, information, referral, and "hard services" to enhance the family caregiving role.

- This program recognizes the family members, and other significant caregivers, as case managers.
- The role of the professional is to support and enhance, not substitute for, family caregiving.
- Families define their own service packages, with agency services provided when requested.
- Family meetings include a caseworker, the elderly person receiving care, and family members who provide care.
  - This group designs a service package to supplement family-provided care.
  - One relative, the primary natural support, is identified as the case manager.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	Home Based Care, of the Department of Human Resources of the State of Maine, provides in-home services to elderly at risk of institutionalization. Services include: • Assistance with activities of daily living. • Funding to families or neighbors when all other resources are exhausted.
Activity: Individual Worksheets and Large Group Discussion (30 minutes): • Handout Public Health Interventions for Family Caregivers Worksheet • Distribute the handout, and ask participants to complete their worksheets individually in 15 minutes. • Reconvene the group and ask participants the bulleted questions in the right- hand column.	PUBLIC HEALTH INTERVENTIONS FOR FAMILY CAREGIVERS Questions for Discussion • What intervention services currently are provided by your agency? • What intervention services are provided by other agencies? • What coordination for these services exists between yours and other agencies? • What additional services can your agency provide to assist family caregivers? • How can you facilitate further coordination between agencies to increase these services?

IV. Overheads

Perceptions of the Elderly

- Biological age
- Psychological age
- Social age

Ageism

- Deep-seated uneasiness
- Distaste for growing old, disease, and disability
- Fear of powerlessness

Myths

- Unproductivity
- Inflexibility
- Senility
- Serenity

The Health Care Delivery System

- Prescribe inappropriate treatments
- Limit the elderly's control of their activities
- Raise few psychosocial issues
- Have biases regarding services younger patients don't require

Intervention of Public Health Professionals

Identify mental health needs in order to:

- Refer for treatment and services
- Eliminate or reduce feelings of isolation

Public Health Role

- Normal reactions to crisis
- Dysfunctional reactions to crisis
- Symptoms of organic brain disorders

Grief

- To cope with the loss of loved ones.
- To cope with changes in abilities due to poor health.
- To cope with establishing new roles and relationships as what was once familiar undergoes change.

Stages of Grief

- Shock and denial
- Guilt, anger, and bargaining
- Adjustment and acceptance

Public Health Support

- Identify clients experiencing grief.
- Listen to their expressions of grief.
- Provide support to strengthen coping mechanisms.
- Network to maximize supportive activities.

Symptoms of Depression

- Feeling "blue"
- Fatigue
- Concern for the increased difficulty of doing the things one usually does everyday
- Constipation

Symptoms of Depression (continued)

- Difficulty in falling asleep
- Diminished appetite
- Restlessness
- Weight loss or weight gain

Symptoms of Depression (continued)

- Early morning waking
- Persistent feelings of loneliness, worthlessness, and helplessness
- Inability to enjoy activities
- Suicidal thoughts

Categories of Depression

- *Reactive* - in response to an event or stressful situation
- *Endogenous* - caused by internal organic factors

Symptoms of Alzheimer's Disease

- Changes in feelings, such as the onset of despair, irritability, or apathy.

- Inability to remember recent events, facts, names, or places.

- Difficulty in solving simple problems or attending to a task.

Symptoms of Alzheimer's Disease (continued)

- Confusion about time, place, what to do.
- Getting lost in familiar surroundings.
- Exercising poor judgment in acting, dressing, hygiene, decision making.
- Changes in eating, sleeping, or exercising.

The Short Portable Mental Status Questionnaire

- Where are we now?
- Where is this place located?
- What is today's date?
- What month is it?
- What year is it?

Source: Kahn R, Goldfarb A, Pollack M, and Peck A. Objective Measures for Determination of Mental Status in the Aged. *American Journal of Psychiatry*. 117: 326-328, 1960

The Short Portable Mental Status Questionnaire (continued)

- How old are you?
- When is your birthday?
- What year were you born?
- Who is President of the United States?
- Who was the President before him?

Injuries Suffered by Victims of Crime

- Physical
- Financial
- Psychological

Elder Abuse

- Physical abuse
- Negligence
- Financial exploitation
- Psychological abuse
- Violation of rights
- Self-neglect

High-Risk Elderly

- Female
- Advanced age
- Dependent
- Problem drinker
- Intergenerational conflict
- Internalizes blame

High-Risk Elderly (continued)

- Excessive loyalty
- A history of past abuse
- Stoicism
- Isolation
- Impairment
- Provocative behavior

High-Risk Caregivers

- Problem drinker
- Medication or drug abuser
- Senile dementia or confusion
- Mental or emotional illness
- Caregiving inexperience

High-Risk Caregivers (continued)

- Economically troubled
- Abused as a child
- Stressed
- Unengaged outside of home
- Blamer

High-Risk Caregivers (continued)

- Unsympathetic
- Lack of understanding
- Unrealistic expectations
- Economically dependent
- Hypercritical

High-Risk Family Systems

- Lack of family support
- Caregiver reluctance
- Overcrowding
- Isolation
- Marital conflict

High-Risk Family Systems (continued)

- Economic pressures
- Intra-family burdens
- Desire for institutionalization
- Disharmony in shared responsibility

Scams Targeted at the Elderly

- Con games
- Consumer fraud
- Health quackery

Crime-Stress Reaction

- Shock and disbelief
- Fear, anger, and depression
- Cataclysm of emotions
- Frustration and confusion
- Reconstruction

Community Support Systems

- Preventive systems
- Treatment systems
- Rehabilitative systems

Caregivers of Disabled Elderly

Relationship	% of Care Provided
All relatives, caring for males	**84**
All relatives, caring for females	**79**
Men, cared for by wives	**33 +**
Women, cared for by husbands	**10**
Adult children, caring for fathers	**25**
Adult children, caring for mothers	**33**
Other relatives, caring for men	**23**
Other relatives, caring for women	**35**

Source: U.S. Senate Special Committee on Aging. *Aging in America: Trends and Projections (1987-1988 Edition)*. U.S. Department of Health and Human Services, 1988.

Areas of Concern

- Intellectual and physical changes in the patient.
- Causes of the disease.
- Possible hereditary aspects of the disease.
- Loss of financial and emotional resources.
- Increased need to provide physical care for an indefinite period.
- Increased social isolation.
- The need to understand and to explain this illness to the extended family and friends.
- The need to identify and access supports.

Interventions for Caregivers

- Education and training.
- Mutual aid and self-help groups.
- Coordination and formalization of services.

Education and Training Programs

- Increase caregivers' skills.
- Increase knowledge and understanding.
- Gain ability to cope.
- Reduce stress.

Mutual Aid and Self-Help Programs

- Information
- Emotional support
- Advocacy
- Combination

Formalization and Coordination of Family Caregiving

- Caregiving role identified.
- Caregiving role formally delineated in a service contract with a public agency.
- Family's services included in an overall service plan for their elderly relative.

V. Handouts

THE LITTLE BOY AND THE OLD MAN

Said the little boy, "Sometimes I drop my spoon."
Said the litttle old man, "I do that too."
The little boy whispered, "I wet my pants."
"I do that too," laughed the little old man.
Said the little boy, "I often cry."
The old man nodded, "So do I."
"But worst of all," said the boy, "It seems
Grown-ups don't pay attention to me."
And he felt the warmth of a wrinkled old hand.
"I know what you mean," said the little old man.

The Little Boy and the Old Man from *A Light in the Attic* by Shel Silverstein. Copyright (c) 1981 by Evil Eye Music. Reprinted by permission of Harper and Row Publishers, Inc.

THE AGING SEMANTIC DIFFERENTIAL

Below are listed a series of polar adjectives accompanied by a scale. you are asked to place a check mark along the scale at a point that in your judgment best describes the elderly you come in contact with professionally. Make each item a separate and independent judgment. Do not worry or puzzle over individual items. It is your first impression or immediate feeling about each item that is wanted. [From: Rosencranz H and Nevin T.A Factor Analysis of Attitudes. *The Gerontologist*. 9: 55-59, 1969]

The elderly individuals I come in contact with professionally are...

progressive		old-fashioned
consistent		inconsistent
independent		dependent
rich		poor
generous		selfish
productive		unproductive
busy		idle
secure		insecure
strong		weak
healthy		unhealthy
active		passive
handsome		ugly
cooperative		uncooperative
optimistic		pessimistic
satisfied		dissatisfied
expectant		resigned
flexible		inflexible
hopeful		dejected
organized		disorganized
happy		sad
friendly		unfriendly
neat		untidy
trustful		suspicious
self-reliant		dependent
liberal		conservative
certain		uncertain
tolerant		intolerant
pleasant		unpleasant
ordinary		eccentric
aggressive		defensive
exciting		dull
decisive		indecisive

Reprinted with permission from Rosencranz H and Nevin TA. Factor Analysis of Attitudes. The Gerontologist. 9:55-59, 1969.

DEBUNKING MYTHS ABOUT AGING

Robert Butler has identified four myths about the elderly:

- Myth of unproductivity
  - The elderly are devalued because it is perceived that they cannot hold a job due to illness, disability, or forced retirement.
- Myth of inflexibility
  - It is perceived that the elderly cannot adapt to change and they cling to older methods and knowledge.
- Myth of senility
  - It is perceived that many elderly have irreversible senility, while they actually may be suffering from anxiety, depression, or physical illness.
- Myth of serenity
  - It is perceived that the elderly fill their days with relaxation and recreation, ignoring the reality of stress due to physical illness, chronic disability, and/or grief over losses.

Other myths have no basis in fact, as well, and can be disproved.

- Approximately one percent of the incomes of older persons is provided by relatives or friends.
- Less than three percent of persons 60 to 70 years of age develop the symptoms of organic brain disease.
- Twenty percent of persons 90 to 100 years of age show signs of organic brain disease.
- Drivers over 65 years of age have fewer automobile accidents than drivers younger than 65, and much lower accident rates than drivers under 30 years old.
- Despite declines in perception and reaction speed under laboratory conditions, older workers in actual working conditions generally perform as well as younger workers.
- Older workers have less job turnover, less accidents, and less absenteeism than younger workers.

- While older people tend to become more stable in their attitudes, they do change and adapt to many major events in their lives (retirement, children leaving home, widowhood, moving to new homes, serious illness).
- Political and social attitudes of the elderly shift with those of the rest of society, although at a somewhat slower rate than younger persons.
- Many older persons report that they are not lonely; they have close relations nearby who they visit, spend much time socializing with friends, and participate in religious or voluntary organizations.
- Most older people live near their children and visit them often.
- Intellect is maintained or improved as people grow older.
- Personality does not change with age; the rigid and cantankerous old person is a stereotype.

Adapted form Butler R. Age-ism: Another Form of Bigorty. *The Gerontologist*. 9:243-246, 1969; Grady S. *Mental Health and Aging: An In-Service Training Guide*. Lansing, MI: Office of Services to the Aging, 1987; and U.S. Department of Health and Human Services, National Institute on Aging. What Is Your Aging I.Q.? November 1986.

Handout

COMMUNICATIONS BETWEEN PHYSICIANS AND PATIENTS

Skit 1

Setting: Dr. Campbell's Office

Characters: Dr. Josephine Campbell (Physician)
Anthony Rizzo (72-year-old patient)
Susan Thomas (Receptionist)

Action: Mr. Rizzo arrives at the office for a 10:00 a.m. appointment. He sees the receptionist, who tells him that the doctor is very late and that Mr. Rizzo may have to wait for an hour. Mr. Rizzo reacts.

Dr. Campbell arrives, asks Mr. Rizzo to come in, and asks him what his problem is. Mr. Rizzo says his left arm is painful and stiff. Dr. Campbell asks Mr. Rizzo his age. Mr. Rizzo replies that he is 72. Dr. Campbell suggests that for a man his age he should be happy that nothing more is wrong.

Mr. Rizzo agrees and feels foolish about complaining.

Dr. Campbell prescribes a pain killer and a sleeping pill. Mr. Rizzo thanks the doctor and leaves.

Script Outline

- Dr. Campbell is a very busy physician with little time for dealing with the emotional needs of her elderly patients, nor for their complaints about minor aches and pains. In this skit she provides care for Mr. Rizzo in a detached, unsympathetic manner.
- Dr. Campbell's action in this skit includes:
  - listen to Mr. Rizzo describe his symptoms, look at your watch as he speaks;
  - ask Mr. Rizzo his age (72), tell him that for a man his age he should be happy that nothing more is wrong;
  - prescribe a pain killer and a sleeping pill, and tell Mr. Rizzo he shouldn't worry.

best copy available

- Mr. Rizzo holds physicians in high regard, and is in awe of Dr. Campbell's busy schedule. He is concerned that his painful, stiff arm could indicate a chronic problem, but he is also embarassed about seeing Dr. Campbell for an ailment that is probably just a part of growing old.

- Mr. Rizzo's action in this skit includes:

  - state that you arrived at 9:55 a.m. for your 10:00 a.m. appointment;

  - show passive displeasure at the rude treatment that you receive from Ms. Thomas, the receptionist, grumbling that your time is important, too;

  - tell Dr. Campbell that you made an appointment to see her because your left arm is painful and stiff;

  - when asked your age, sheepishly tell her that you are 72 years old;

  - when Dr. Campbell tells you that you should be happy that nothing more is wrong, apologize for taking up her time for a minor problem;

  - thank Dr. Campbell for the prescription and leave her office.

- Ms. Thomas sees Dr. Campbell as a hero. She has little patience for Mr. Rizzo and other patients who, because of minor ailments, demand the valuable time of the busy physician.

- Ms. Thomas' action in this skit includes:

  - tell Mr. Rizzo that Dr. Campbell is running late today because she is very busy with her patients, and he will have to wait for at least one hour to see him;

  - as Mr. Rizzo grumbles his displeasure, ignore him.

Adapted with permission from The New York City Department for the Aging. *STAY WELL: A Health Promotion Program of Older Adults*. November 1988.

Skit 2

Setting: Dr. Rodriguez' Office

Characters: Dr. Daniel Rodriguez (Physician)
Rochelle Miller (Patient, who is 65 years old)

Action: Dr. Rodriguez checks Ms. Miller's chart and then asks her what seems to be bothering her.

Ms. Miller reads (from a prepared list) her symptoms for the last two days.

Dr. Rodriguez asks if she has ever experienced any of these symptoms before.

Ms. Miller says no, but that she is older now.

Dr. Rodriguez replies that in many cases age is not a factor and that he will have to give her a thorough examination.

Following the exam, Dr. Rodriguez prescribes medication.

Ms. Miller reads a series of questions from a prepared list concerning the medication's dosage, its generic name, how frequently she should take it, and whether she can drive after taking it .

Script Outline

- Ms. Miller is an educated consumer of health care services. She is assertive with her physician and normally records her symptoms and questions she would lik to ask prior to office visits.

- Ms. Miller's action in this skit includes:

  - recite from a prepared list your symptoms which include shortness of breath and light-headedness:

  - when Dr. Rodriguez asks if you have experienced these symptoms before, reply that you have not, but you are older now;

- when Dr. Rodriguez hands you a prescription, read from a prepared list questions that include: how many pills you should take, when you should take them, what the generic name for the medication is, and if you can drive after taking the medication.

- Dr. Rodriguez is concerned about equal access to care for all, especially the elderly. He has provided information to each patient on how best to use his services to stay healthy.

- Dr. Rodriguez' action in this skit includes:

  - review Ms. Miller's chart and ask her what is bothering her;

  - listen attentively to her list of symptoms, write on a pad what she is telling you;

  - ask Ms. Miller if she has experienced any of these symptoms before;

  - when Ms. Miller responds that she has not. tell her that age is not a factor for many conditions, and he will have to give her a thorough examination;

  - after the examination (not role played), write a prescription for medication, tell Ms. Miller that her symptoms indicate a minor problem that should be alleviated by the medication;

  - respond to Ms. Miller's questions concerning the medication, and congratualte her for being a educated consumer of health care services.

Adapted with permission from The New York City Department for the Aging. *STAY WELL: A Health Promotion Program of Older Adults*. November 1988.

Skit 3

Setting: Dr. Newman's Office

Characters: Dr. Joseph Newman (Physician)
Elizabeth Barnett (Patient, who is 86 years old)

Action: At the conclusion of the appointment, Dr. Newman tells Mrs. Barnett that she is responding well to her hypertension medication.

Mrs. Barnett thanks the physician, and tells him that she is trying very hard to take her pills when she is supposed to and that she stopped eating canned soups for lunch. She then talks about the low-salt meals she prepares, how much she dislikes eating alone, how much she dislikes living alone, how much she dislikes eating alone, and how hard it is for her to do things for herself that she used to do.

Dr. Newman responds sympathetically, but keeps looking at his watch.

Mrs. Barnett continues her discussion of difficulties with being alone, and concludes by saying that what she really needs is someone to clip her toenails because she's not capable of bending over to do that any longer.

Dr. Newman hesitates, looks at his watch one more time, and answers that he will gladly clip her toenails.

Script Outline

- Mrs. Barnett is concerned about her hypertension problem and proud of herself for the changes she has made to improve her health. She is embarassed, however, to ask others to help her do things she can no longer do for herself.
- Mrs. Barnett's action in the skit includes:
  - thank Dr. Newman for the office visit and for speaking with you;
  - tell Dr. Newman that you are trying hard to take your pills when you are supposed to and you have stopped eating canned soups for lunch;
  - describe for Dr. Newman the low-salt recipes you use and, in a rambling way, talk to him about your life, your dislike for living and eating alone, difficulties you have, and how hard it is for you to do things for yourself;
  - ask Dr. Newman if he would clip you toenails for you because you are no longer capable of bending over to do that.

- Dr. Newman has many elderly patients. He feels that he provides care for them equal to the care he provides for other patients, but is sometimes frustrated by the length of appointments with elderly patients.

- Dr. Newman's action in this skit includes:

  - tell Mrs. Barnett that she is responding well to her hypertension medication;

  - when Mrs. Barnett talks about her life alone, appear frustrated and look at your watch several times;

  - when Mrs. Bartnett asks you to clip her toenails, look at your watch , and, in an exasperated tone, tell her that you will gladly clip her toenails.

The Short Portable Mental Status Questionnaire

To make a quick assessment of an elderly individual's degree of confusion, a practitioner can administer the Short Porable Mental Status Questionnaire (SPMSQ). The test comprises ten questions that have been shown to be good indicators of a patient's alertness, orientation for time and place, and recent and remote memory. The questions can be asked at any appropriate time during an examination. It is important to ask all the questions and record the answers.

Questions:

1. Where are we now?
2. Where is this place located?
3. What is today's date?
4. What month is it?
5. What year is it?
6. How old are you?
7. When is your birthday?
8. What year were you born?
9. Who is the President of the United States?
10. Who was the President before him?

A score of 9 to 10 indicates no confusion; 6 to 8, slightly confused; 3 to 5, moderately confused; 0 to 2, seriously confused.

Reprinted from Kahn R, Goldfarb A, Pollack M, and Peck A. Brief Objective Measures for Determination of Mental Status in the Aged. American Journal of Psychiatry. 117:326-328, 1960.

PLANNING A PROGRAM FOR PUBLIC HEALTH PROFESSIONALS TO IMPROVE SKILLS IN ATTENDING THE PSYCHOSOCIAL NEEDS OF THE ELDERLY

In small groups, identify the following for your jurisdictions:

1. **Titles of public health professionals who provide care for the elderly and the type of care provided (e.g., nursing, assistance with household tasks).**

2. **Methods to assess their skills in recognizing the symptoms of emotional problems, organic brain disorders, and victimization.**

3. **Inservice activities to increase their competence in recognizing the symptoms of emotional problems, organic brain disorders, and victimization.**

PUBLIC HEALTH INTERVENTIONS FOR FAMILY CAREGIVERS WORKSHEET

Directions: **Based on knowledge of the services for family caregivers in your jurisdiction, complete the chart below:**

	Education and Training	Mutual Aid and Self-Help Groups	Formalization of Services
Services Provided by Your Agency			
Services Provided by Other Agencies (Identify the Agencies)			
Coordination for Services between Your Agency and Others			

VI. Resources

Resources

Advocacy and Support Services

Alzheimer's Disease and Related Disorders Association
70 East Lake Street
Chicago, Illinois 60601
(800)621-0379

American Association of Retired Persons
1909 K Street, N.W.
Washington, DC 20049
(202) 728-4226

Children of Aging Parents
2761 Trenton Road
Levittown, Pennsylvania 19056
(215)945-6900

Commission on Legal Problems of the Elderly
The American Bar Association
1800 M Street, N.W.
Washington, DC 20036
(202) 371-2200

Displaced Homemaker Network
1411 K Street, N.W.
Washington, DC 20005
(202)628-6767

Gray Panthers
3634 Chestnut Street
Philadelphia, Pennsylvania 19104
(215)382-3300

National Association for Home Care
519 C Street, N.E.
Washington, DC 20002
(202)547-7424

Resources (Continued)

National Organization for Victim Assistance
717 D Street, N.W.
Washington, DC 20004
(202) 393-NOVA

Families U.S.A. Foundation (formerly Villers Foundation)
25 West Street
Boston, Massachusetts 02111
(617) 338-6035

Widowed Persons Service
AARP
1909 K Street, N.W.
Washington, DC 20049
(202)872-4700

Services for Specific Populations

National Association of Lesbian and Gay Gerontologists
1853 Market Street
San Francisco, California 94103

National Center on Black Aged
Arlington, Massachusetts

National Coalition of Hispanic Health and
Human Services Organizations
1030 15th Street, NW
Washington, DC 20005
(202) 371-2100

Resources (Continued)

Resources for Publications and Audio-Visual Materials

National Institute on Aging Information Center
2209 Distribution Circle
Silver Spring, Maryland 20910

Modern Talking Picture Service
4705-F Baker's Feary Road
Atlanta, Georgia 30336

Pfizer Pharmaceuticals
P.O. Box 168
Staten Island, New York 10305

Ross Laboratories
Audiovisual Communications Department
Columbus, Ohio

Pacific Presbyterian Medical Center
P.O. Box 7999
San Fenacisco, California 94120
(Producers of the videocassette program, Aging in America: Dignity or Despair?)

Readings

American Association of Retired Persons Minority Affairs Initiatives. *A Portrait of Older Minorities*. Washington, D.C.: AARP, 1986

Aronson MK, Bennett R, and Gurland BJ. *The Acting Out Elderly*. New York: Haworth Press, 1983.

Cohen G. *Fact Sheet: Senile Dementia (Alzheimer's Disease)*. National Institute of Mental Health, Center for Studies of the Mental Health of Aging. Rockville, MD, 1980.

The Dementias -- Hope Through Research (NIH Publication No. 81-2252), *Aphasia-Hope Through Research* (NIH Publication No. 80-391), *Huntington's Disease-Hope Through Research* (NIH Publication No. 90-49), *Alzheimer's Disease Q& A* (NIH Publication No. 80-1646). Available from National Institutes of Health, Office of Scientific and Health Reports, NINCDS, Building 31, Room 8A-06, Bethesda, MD 20205 (single copies free to individuals).

Dreker BB. *Communication Skills for Working with Elders*. New York: Springer, 1987.

Freemon FR. *Organic Mental Disease*. Jamaica, NY: Spectrum Publications, 1981.

Readings

Heston LL and White JA. *Dementia: A Practical Guide to Alzheimer's Disease and Related Diseases*. New York: W.H. Freeman and Company, 1983.

Litwak E. *Helping the Elderly: The Complementary Roles of Informal Networks and Formal Systems*. New York: The Guilford Press, 1985.

Mace NL and Rabins PV. *The Thirty-Six Hour Day: A Family Guide to Caring for Persons with Memory Loss in Later Life, Alzheimer's Disease, and Other Dementing Illnesses*. Baltimore, MD: Johns Hopkins University Press, 1981.

Manuel RC (Ed.). *Minority Aging*. Westport, CT: Greenwood Press, 1982.

Powell L and Courtice K. *Alzheimer's Disease: A Guide for Families*. Reading, MA: Addison-Wesley Publishing Company, 1983.

Zarit SH. *Aging and Mental Disorders*. New York: The Free Press, 1980.

VII. Readings

Age-Ism: Another Form of Bigotry

Robert N. Butler, MD[1]

MALCOLM X, the Kerner Commission Report, and a variety of other persons, events, and materials have made the concept of racism familiar. Social class discrimination also needs no introduction. However, we may soon have to consider very seriously a form of bigotry we now tend to overlook: age discrimination or age-ism, prejudice by one age group toward other age groups. If such bias exists, might it not be especially evident in America; a society that has traditionally valued pragmatism, action, power, and the vigor of youth over contemplation, reflection, experience, and the wisdom of age?

In the affluent community of Chevy Chase, recent events have revealed a complex interweaving of class, color, and age discrimination that may highlight the impact of these forces in our national life.

On January 30, 1969, the National Capital Housing Authority, the public housing agency of the District of Columbia, held hearings on its proposal to purchase Regency House, a high-rise apartment building in Chevy Chase, for the elderly poor. If finally approved, Regency House would be the first public housing project west of Rock Creek Park, the traditional boundary between black and white in Washington, D.C.

The middle-class and middle-aged white citizenry of Chevy Chase appeared at both the hearings and at the Chevy Chase Citizens' Association meeting at a local public school on February 17. They vigorously protested on a variety of grounds the National Capital Housing Authority proposal. Some of these aroused citizens demonsfrated that they could practice the politics of protest and confrontation in a manner as impassioned as that of the young and alienated.

Chevy Chase residents were irritated and angered by a proposal to provide what they considered luxury housing (there is a swimming pool on the roof of Regency House) for older people who were not accustomed to "luxury."

Among statements heard at the meetings and quoted in the local newspapers were: "You would open the door for people who don't know how to live." "Slums are made by the people who live in them." "It (public housing) has to come sometime but not this time or in this place." "I am not against old folks, believe me." "Who wants all those old people around." Zoning, tax losses, costs, and property values were also mentioned, but it was clear that more than concern over the pocketbook was operating.

Class, color, and age have always been parts of the structure of American communities. Since the passage of the Public Housing Act of 1937, we have tended to increase the divisions within America by separating the poor and segregating the non-white. Today, despite Social Security, the elderly poor are common, and they are frequently black. There has also been a trend in recent years toward segregation of the middle-class elderly in "retirement communities" and "housing for the elderly."

Neighborhood reaction against the use of Regency House for the elderly poor carries implications beyond Chevy Chase. The classic or scapegoat explanation for prejudice turns upon the unconscious effort to justify one's own weaknesses by finding them in others—in other races, religious, or nationalities. Personal insecurity, once generalized, becomes the basis of prejudice and hostility.

Age-ism describes the subjective experience implied in the popular notion of the generation gap. Prejudice of the middle-aged against the old in this instance, and against the young in others, is a serious national problem. Age-ism reflects a deep seated uneasiness on the part of the young and middle-aged—a personal revulsion to and distaste for growing old, disease, disability; and fear of powerlessness, "uselessness," and death.

[1] Washington School of Psychiatry and George Washington University Medical School, 1815 Huntington St., NW, Washington, DC 20015

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Cultural attitudes in our society reinforce these feelings. We have chosen mandatory retirement from the work force and thus removed the elderly from the mainstream of life. Age-ism is manifested in the taunting remarks about "old fogeys," in the special vulnerability of the elderly to muggings and robberies, in age discrimination in employment independent of individual competence, and in the probable inequities in the allocation of research funds. Although persons 65 years of age and over account for 25% of all public mental hospital admissions, only 3% of the research budget of the National Institute of Mental Health is spent in relevant research. Less than 1% of the budget of the entire National Institutes of Health is devoted to the study of aging phenomena.

The issue goes deeper. It is the middle-aged, after all, upon whom the "burdens imposed" by both ends of the life cycle, the young and the old, necessarily fall. From their purses come hard-won earnings to educate the young and to care for the elderly (in our time collectively, although inadequately, through Medicare and Social Security). Middle life has been labeled the period of "gravity" because of its manifold responsibilities. It is not surprising that some members of the middle group "cop out" of marriages, of jobs, even of society while others rigidly and tenaciously hold on to what they have struggled so hard to achieve. Many middle-aged people, of course, respond flexibily and creatively to both young and old.

Age-ism is also seen in other groups. The young may not trust anyone over 30; but those over 30 may not trust anyone younger. The Walker Commission report has described how young people were beaten-up in the "police riot" in Chicago during the Democratic Convention. These attacks have been viewed as class-determined (lower-class police punishing middle-class children) and the age factor has been minimized. Yet future historians may find in the political year 1968 the elements of a counter-revolution by the middle-aged against both the young and the old.

Many different objections were raised to the National Capital Housing Authority proposal for housing the elderly poor in Chevy Chase. Color and class were surely most significant, yet racism alone cannot account for the "middle-aged riot" —for screeching, shouting, booing, and stomping of feet that occurred at the hearings and the citizens' meeting. A local official noted that the same arguments against public housing had been heard from middle-class Negro families in the Northeast, a predominantly black section of Washington.

The proposed purchase of the nine-story 172-unit apartment building gave rise to an extraordinary amount of misinformation. In the first place, Regency House is not particularly luxurious. The National Capital Housing Authority now houses about 1600 elderly individuals or couples, and over the last two years, has spent $8.3 million to buy three high-rise apartment houses that had been privately constructed and rented. These buildings, all less than 5 years old, contain more than 600 apartments and are well equipped with air conditioning, off-street parking, garbage disposals, and swimming pools. A swimming pool, so offensive to the affluent Northwest Washingtonians who objected to the Regency House proposal, could be beneficial for the health and recreation of older people.

Second, contrary to the apparent fears that only elderly Negroes on welfare could occupy Regency House, NCHA housing is for low-income elderly and not just for welfare or black elderly. The maximum annual income that an elderly person may have to live in NCHA housing is $3,300 for an individual and $4,300 for a couple. Retired school teachers, railroad employees and others, both black and white, would seek to live in Regency House and indeed these groups make up 10% of the 1,200 persons who have been on NCHA housing waiting lists for an average of 2 years. Tenants at Regency House would have to pay $50 per month for an efficiency and $55 per month for a one-bedroom apartment. Preference is given to veterans and to those evicted by urban renewal.

Some opponents of the Regency House proposal expressed fear that families with children would eventually move in, although the apartment house contains only efficiencies and one-bedroom apartments.

Others considered that "these people" were undeserving and should have been more provident. Yet the stereotype of the undeserving poor seems curiously outmoded. Many of "these people" were at the height of their earning power and productive years during the Depression when income and the possibility of saving were minimal. With inflation spiraling at a rate of 4 to 6%, it has been difficult for people of all ages living on fixed incomes to save, irrespective of prudence. Despite a 13% across-the-board increase in Social Security benefits in January, 1967, more people

have fallen below the poverty line because of inflation than have risen above it. Fortunately, consideration is now being given to including escalator clauses in Social Security to provide for cost of living increases.

Other opponents of the Regency House proposal misunderstood the financial basis of the plan. They feared that monies for the purchase of this building would come out of their own pockets through local taxes. The costs actually do come out of their pockets in part, but through the federal Internal Revenue receipts that provide for partial subsidies for public housing throughout the country.

Still another point in the opposition was that "these people" would have a higher cost of living in Chevy Chase than elsewhere. Actually there has been some evidence that living costs are higher in Washington's ghetto areas.

Among the positive features of the area is the location of Regency House close to conveniences useful to older people: drug stores, reasonably priced restaurants, cafeterias, and supermarkets. A community center, a library, and public transportation are also nearby.

Prior to the selection of Regency House, the National Capital Housing Authority had to study carefully the 200 apartment buildings it has been offered to determine soundness of construction, proper location, and appropriate price. Under an executive order from President Johnson, National Capital Housing Authority is required to space public housing throughout the city of Washington. If National Capital Housing Authority had not selected Regency House, it would have chosen some other apartment building in a comparable area of Northwest Washington.

Commissioner Walter E. Washington approved the purchase on March 6 and the Department of Housing and Urban Development gave its approval. There was talk among the middle-aged opponents of legal action against the decision. One stated ground was that public monies should not be used to enforce social policies.

H. G. Wells once said that history is a race between education and catastrophe. The NCHA might have mitigated the storm of controversy and, more important, facilitated the reception of the elderly poor into Chevy Chase through an educational campaign with the assistance of the press (both the *Washington Post* and the *Star* have support the NCHA), and various interested groups and individuals within and without the community. Many groups testified in favor of Regency House, including the Northwest Washington Fair Housing Association. City-wide organizations, such as the League of Women Voters and the D.C. Democratic Central Committee have supported the proposal. However, there was a large measure of good will within the community that was not mobilized.

The experience of other housing for the elderly sponsored by NCHA could have been reported and potential residents themselves asked to participate in neighborhood meetings. Chevy Chase residents, imprisoned in such myths as "deterioration," could have been invited to visit other NCHA housing.

Such a program would have been political education in the very best sense. Perhaps the same number of Chevy Chase residents would have objected; but their protests would have been drowned out by a better informed, articulate majority. Moreover, both the youth and the middle-aged of the area would have learned something about themselves, including the implacable course of their own aging.

To explore the bigotry in age-ism is not to minimize the other more salient features of racial and class discrimination observed in Chevy Chase. But aging is the great sleeper in American life. By the year 2000, according to current population projections, there will be approximately 33 million retired people each with an average of 25 years of retirement time. Should there be major breakthroughs in finding deterrants to aging along with the present steady pace of medical progress, there would be still greater numbers of old and retired people. How are they (that is, we) to be supported: What are they (we) to do? The Beatles sing:

> "Will you still need me,
> Will you still feed me,
> When I'm sixty-four.
> You'll be older, too. . ."

Chevy Chase residents, like Americans in general, are unaware of or unwilling to acknowledge the poverty of the elderly. George Santayana said that, but for the excellence of the typical single life in a society, no nation deserves to be remembered more than the sands of the sea. If it may be said that the quality of a culture can be measured by its regard for its least powerful members, for example, its care for the elderly and its protection and education of its children, the readings for ours are disappointingly low.

Social Security and Medicare, which most Americans consider landmarks in social legisla-

tion, are little more than sops to the conscience. The average income of the person over 65 in America is $1,800 per year. Nearly 7 million of our 19 million elderly are below the poverty line. The average monthly Social Security check of a retired male worker in America today is $86.04. Since Medicare pays an average of only 35% of medical bills, it has thus far failed to provide adequate financial support for the health care of the elderly. Medicare, Social Security, and public housing are examples of tokenism. They are not fundamentally meeting human needs for health care, income, and housing.

In the District of Columbia there are 73,000 people of age 65 and above. The immediate area of Regency House has a heavy concentration of older people (and four old age homes) but in Washington, as in other cities, the elderly tend to be locked in older, slum-ridden areas. Many elderly, for example, live in Washington's Model Cities area, which includes the Shaw section. Much of the public housing in the District has been built in the Anacostia area across the river.

Ironically, one could question the wisdom of concentrating old people in specific housing. Sweden, for example, has been giving up high-rise enclaves for its older citizens. Rather than a housing program for older citizens, it might be more desirable socially to provide rent supplements or, ultimately, appropriate income maintenance so that the elderly could live anywhere throughout the city. Of course, some older people do want to live together and coordinated services —medical, social, and recreational—can be placed in housing for the elderly. For those with increasing limitation, congregate living with available services is mandatory. Thus, it is probably wisest for a society to provide a range of alternatives. One of the greatest losses of old age is that of choice.

One thing is certain: further concentration of public housing in limited sections of any city—concentrating the poor or the rich or the black or the old or the young—only contribute to the divisiveness of our society, particularly the separation into two societies described in the Kerner Report.

I do not want my children to grow up in an isolated neighborhood, knowing neither the realities of old age nor the meaning of racial heterogeneity. Age, race and social class discrimination are clearly inimical to the developing human community and to the extent that our community of Chevy Chase is "closed," *it* is inherently disadvantaged.

Age-ism might parallel (it might be wishful thinking to say replace) racism as the great issue of the next 20 to 30 years and age bigotry is seen within minority groups themselves.

Seventeen per cent of our electorate is over 65 already, but at present it is not voting as a group; consequently politicians are not zealously seeking the votes of older citizens. Yet this may well change; perhaps one day we will be hearing of Senior Power. We don't all grow white or black, but we all grow old.

Octogenarians of the World, Unite!

After all the snide cracks that the years have seen made at the expense of little old ladies and their tut-tutting Victorian ways, it was marvellous, this week, to find one little old lady turning the usual tables. One's heard of the little old lady who makes sure that nothing gets into *Reader's Digest* that isn't clean and proper, of Henry Jame's little old lady in Dubuque who was the only reader that the booksellers cared about, of the little old ladies of Cheltenham whom moral campaigners like Sir Cyril Osborne are always so keen to protect, but what price the Little Old Lady Of Richmond? When 20 stout fellows of the National Front broke into a Richmond theatre in an attempt to disrupt a play they considered immoral, corrupt, and dangerous, they were turned on by an 80-year-old darling who bunched her fists and drove the whole lousy lot of them out of the building. The play being *Staircase*, a fine and sensitive item with a homosexual theme, the whole incident only bears out what we've believed for years, viz. that all those other old ladies were just figments of the bigoted imaginations prepared to use them to serve their own ends. It's clearly not the real little old ladies we have to worry about, but the quacking members of the National Front who are the real threats to free expression, and don't let anyone forget it.

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Using a newly developed coding method, the Geriatric Interaction Analysis (GIA) system, the interactions of doctors with a matched sample of older and younger patients were audiotaped and scored. Patients and doctors raised fewer psychosocial issues in interviews with older patients than with younger patients. Doctors also responded less well to those issues when elderly patients raised them.

Key Words: Physician-patient relationship; Geriatric interaction analysis system

Psychosocial Concerns in the Medical Encounter: A Comparison of the Interactions of Doctors with Their Old and Young Patients[1]

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The appropriate role of the physician in the psychosocial domain of medicine has been debated and discussed by physicians and sociomedical researchers for years. Participants in the debate have generally argued from several contrasting viewpoints. First, Engel (1977) and others (Kleinman et al., 1978) have suggested that the traditional medical model defines disease too narrowly as a purely physiological phenomenon. The doctor must consider more than biological factors to effectively treat disease. Additionally, a complete understanding of the patient's "lifeworld" (Mishler, 1984) requires a biopsychosocial approach. Physicians are considered insensitive and, perhaps, even incompetent if they do not incorporate this broader psychosocial perspective (Engel, 1977; Mishler, 1984). Yet proponents of an alternative view contended that physicians should not (Parsons, 1951) and cannot (Seldin, 1984) exert influence in areas in which they are not adequately trained or over which they have little control. A third perspective suggested that our society is becoming increasingly medicalized: more and more behaviors previously considered sinful or deviant, such as alcoholism or childhood hyperactivity, are being defined as clinical entities with the physician becoming the authority on this ever-widening group of social issues (Charon, 1982). Freidson (1975) thus deems the doctor a "moral entrepreneur" who defines what is normal and what is deviant in our culture.

All participants in the debate agreed that the psychosocial aspects of an individual's life influence and are influenced by an individual's physical state. There is ample evidence in which the role of psychosocial factors is documented as determinants of both immune system and cardiovascular health (Sterling & Eyer, 1981). Similarly, physiological health is associated with many mental and social health measures including depression, sense of well-being, and assessments of quality of life (Aneshensel et al., 1984).

Researchers have documented the frequency with which psychosocial issues are raised in medical interviews with primary care practitioners. Of all patient visits, 50% are estimated to have a psychosocial problem as a major complaint (Williamson et al., 1981). Thomas (1977) further contended that at least 75% of patients visit their doctor to get either advice on family, economic, or social issues or reassurance about their physical symptoms.

According to a number of researchers, when psychosocial issues are dealt with in the medical encounter, patients are more satisfied with the visit and ultimately their health status will improve (Ben-Sira, 1985; Engel, 1977; Kleinman et al., 1978). If, in fact, the inclusion of psychosocial concerns in a medical encounter increases the effectiveness of providers, further investigation of this phenomenon is warranted.

The focus of the current study was on the psychosocial aspects of medical visits of elderly and of young patients. The researchers examined the psychosocial topics discussed, by whom these topics were raised, and how these issues were handled by physicians. Three major hypotheses were examined in this study, which is part of a larger investigation of

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the presence of ageism in the medical encounter (Greene et al., 1986): (1) older patients would raise more psychosocial issues with their doctors than would younger patients; (2) doctors would raise fewer psychosocial issues with older patients than with younger patients; (3) doctors would be less responsive to the psychosocial topics raised by older patients than those raised by younger patients.

An assumption was that psychosocial issues would be more important for elderly patients than for young ones. The high incidence of chronic illnesses, the presence of multiple diseases, and the frequent social isolation of the elderly underscore the importance of psychosocial issues for this group (Butler, 1978). Marshall (1981) commented on "the increased importance of caring rather than curing in older patients for whom, often, nothing can be done except to give care" (p. 99). Moreover, it has been estimated that psychological disorders are more prevalent among the elderly than among the young (Maletta, 1983; Shanas & Maddox, 1976) and that the elderly are more likely to present psychological or social stress symptoms to a primary care provider (Regier et al., 1982) than to a psychiatrist. There is substantial literature to support the second and third hypotheses regarding doctors' behavior in raising and responding to psychosocial concerns of the elderly. Many (Lipkin et al., 1984; Regier et al., 1982) have pointed out that medical schools and residency programs excel in training physicians who are competent to deal with medical problems but that training in the psychosocial dimensions of care is inadequate despite recent efforts to include such subjects in the medical curriculum. Doctors generally find it difficult and frustrating to treat patients with psychosocial problems (Harris et al., 1985; Williamson et al., 1981). The activist orientation of modern American medicine (Friedson, 1975) makes physicians enthusiastic about dealing with those problems they can solve but much less enthusiastic about confronting the largely unresolveable problems of chronic disability and social isolation. This de-emphasis on psychosocial concerns, combined with the ageist attitudes believed to be held by many health care practitioners (Butler, 1975; Strain, 1981; Wells, 1982), is likely to result particularly in a discounting and denial of the psychosocial problems of elderly patients.

Methods

The study was conducted in the general medical outpatient area of a major urban teaching hospital in New York City. Five physicians were audiotaped interviewing eight patients each: four younger (45 years old or younger) and four older (65 years old or older) patients. Each physician's younger and older patients were matched for sex and race-ethnicity. Additionally, physicians were asked to rate each patient for severity of medical condition on a 2 dimensional scale indicating severe or not severe. All visits included in the sample were follow-up visits.

The matched patient sample was similar in race, gender and socioeconomic composition to the patient population served by the outpatient department. Seventy percent of the patients were female; 55% were black; and 55% received Medicaid. The mean visit length of time was almost exactly the same for old and young patients: 18 minutes.

The five physicians who participated in the study were young. All were less than 40 years old. Three of the doctors were female and four of the physicians were white. One doctor was Hispanic.

The research team composed of two social scientists and two internists, developed the Geriatric Interaction Analysis (GIA) system with which to analyze the audiotaped medical interviews. Although there are a number of well-developed interaction analysis systems to examine doctor and patient communication patterns (Heszen-Klemens & Lapinska, 1984; Mishler, 1984; Roter, 1977; Stiles et al., 1979; Svarstad, 1974; Waitzkin & Stoeckle, 1972; West, 1984) there is none which is focused specifically on the special needs and concerns of elderly patients. The GIA allows researchers to examine the content of the interview, the process of the interview, and the specific behaviors of doctor and patient. The interview is scored directly from the audiotape. The rater lists each topic discussed and notes whether the topic was raised by the patient or by the physician. For each topic raised in the interview, the rater then scored the physician's behavior on three process axes: information-giving, questioning, and supportiveness. The process scores ranged from 1 to 4 and were based on explicit coding rules. A score of 4 denoted that the physician had questioned, informed or supported the patient as completely and comprehensively as possible on a particular topic; a score of 3 indicated an acceptable or sufficient response; a score of 2 was given if the behavior was judged insufficient; and a score of 1 indicated that the physician did not respond to the topic at all. "Not Applicable" ratings were used for topics that did not require a specific response. The average inter-rater reliability coefficient was .70 among the four researchers (specific coding and scoring rules for the GIA are available from the authors).

Content topics were assigned to one category from the list of categories, shown in Chart 1, developed by the research team. These categories were selected because of their potential interest or importance to elderly patients. Specifically, topic categories were determined as follows: when a patient raised a problem concerning a senior center's recreational program, the rater wrote "senior center/yoga" in the topic list, noting that the topic was patient-raised. The topic "senior center/yoga" was then assigned to the category "Work and Leisure Activities." Categories were grouped into four larger aggregates, the major content areas of medical, personal habits, psychosocial, and other.

Results

Of the 4 major content areas, doctors were most likely to raise medical issues with both older and

Chart 1.

Content Categories
Medical
History and symptoms
Dizziness, incontinence, constipation, falls and memory loss
Teeth, dentures
Diagnosis, prognosis, health status
Tests, diagnostic procedures, referrals, treatment
Findings
Medications
Preventive medical measures
Personal Habits
Diet, food
Exercise
Alcohol
Sex
Addictions
Psychosocial
Health care system
Activities of daily living — functional assessment
Work and leisure activities
Money and benefits
Homemaker
Physical home, environment
Family and significant other problems
Bereavement
Other family and social networks
Death
Crime and victimization
Concerns, worries regarding the patient's own physical condition, tests, treatments, procedures, etc.
Depression
General anxieties, worries, not elsewhere classified
Other
Physician's personal life
Small talk
Other

Table 1. Percent Distribution of Content of Doctor and Patient Talk

	Older (*n* = 20 pairs)	Younger (*n* = 20 pairs)
Physician-Raised		
Medical	82.9%	71.6%
Personal Habits	3.5	4.4
Psychosocial	6.1	16.2
Other	7.5	7.8
	100.0%	100.0%
Patient-Raised		
Medical	71.0%	62.0%
Personal Habits	4.6	5.0
Psychosocial	10.7	28.9
Other	13.7	4.1
	100.0%	100.0%

Table 2. Number of Topics in all Psychosocial Content Categories

	Mean Number of Topics		
	Older (*n* = 20 pairs)	Younger (*n* = 20 pairs)	*t*-test *p* Value
Physician-raised	.70	1.65	.02[a]
Patient-raised	.70	1.75	NS
All psychosocial	1.40	3.40	.02[b]

[a]One-tailed Students' *t*-test statistic based on a directional hypothesis.
[b]Two-tailed Students' *t*-test statistic.

Table 3. Physician Response Score

	Physician Response Score[a]		
	Older (*n* = 20 pairs)	Younger (*n* = 20 pairs)	*t*-test *p* Value[b]
Physician-Raised Categories			
Medical	3.07	3.38	NS
Psychosocial	3.20	3.14	NS
All Categories	3.05	3.08	NS
Patient-Raised Categories			
Medical	2.90	3.07	NS
Psychosocial	2.45	3.56	.02
All Categories	2.85	3.08	.03

[a]Mean of questioning, information and support scores, based on a scale of 1 – 4 where 0 = not applicable, 1 = no response, 2 = minimal, 3 = moderate, 4 = extensive (a not applicable score is not calculated in obtaining the mean value).
[b]One-tailed Students' *t*-test statistic.

younger patients, as shown in Table 1. The medical content comprised 83% of all topics raised with older patients and 72% of all topics raised with younger patients. Doctors were much more likely to raise psychosocial issues with younger patients than with older patients. Both older and younger patients were most likely to bring up medical topics for discussion. Of the topics that elderly patients raised, 71% were medical. Of the topics raised by younger patients, 62% were medical. Younger patients were more likely to raise psychosocial issues than were older patients.

As shown in Table 2, more than twice as many psychosocial topics were raised by younger patients and their doctors than by older patients and their doctors. On average, physicians raised about one and a half psychosocial topics with their younger patients compared to less than one for their older patients, which was similar to the number of psychosocial issues raised by younger and older patients.

How well did physicians respond to the different content areas? Physician response (on questioning, informing, and support processes) for doctor-raised and patient-raised issues was addressed separately. Although there were no statistically significant differences in physician response for young and old patients for physician-raised topics, there were significant age-based differences in how doctors responded to patient-raised psychosocial topics. As shown in Table 3, doctors responded significantly better ($p = .02$) when these issues were raised by younger patients than by older patients.

Discussion

The first hypothesis that older patients would raise more psychosocial issues than younger patients was not confirmed and, in fact, the trend is clearly in the opposite direction. How may the finding that younger patients raise more psychosocial topics be ex-

plained? There are three possible explanations. First, perhaps elderly patients "play according to the rules" more so than do younger patients. Older patients may perceive the purpose of the medical encounter in a very traditional way; that is, medical visits are for medical problems. Haug (1979) found that elderly individuals were more likely to accept physician authority than were young individuals and were less likely to challenge physicians than were the young. So the traditional model of the physician-patient relationship, with a dominant physician and a more passive patient, may be present in these encounters.

Second, Korsch (personal communication) has proposed a related explanation in reviewing these findings. Because the number of patient-raised psychosocial topics parallels the number of physician-raised psychosocial topics for both old and young patients, Korsch has suggested that patients may view physicians as giving them permission to speak about nonmedical issues by raising some of these issues themselves and that patients then follow by raising their own concerns in these areas.

A third possible explanation contradicts previous research findings which stated that the elderly have a large psychosocial agenda to be addressed in the medical encounter. Perhaps elderly patients do not have as many psychosocial topics to talk about as was previously thought. Marshall (1981) has suggested that some patients may not accept the psychosocial approach to medicine; they may view it as "an unwarranted intrusion on areas of life that they feel that they can take charge of themselves" (p. 115).

The second hypothesis was supported because doctors raised fewer psychosocial issues with older patients than with younger patients. This may have occurred if the older patients were judged more severely ill by their doctors than were younger patients and physicians wished to spend their limited time with the patient dealing with the important medical concerns. Yet when severity was controlled in the analysis, the significant differences on doctor-raised psychosocial topics remained. Still two explanations for this finding are possible. First, a gross measure of severity was employed (only a 2-point scale indicating severe or not severe). Perhaps this gross estimate was insufficient to adequately control for severity. Second, the explanation proposed here is that doctors do relate differently to their older and younger patients. Does this suggest a subtle ageist bias? Are doctors uninterested in discussing the psychosocial concerns of elderly patients in particular? Are these issues discounted because of doctor indifference? Were the physicians more interested in learning about the lives of their young patients? Because the physicians in the study were young themselves, a more egalitarian sharing of interests and concerns between young doctors and their young patients may be occurring. Whatever attitude this behavior reflects, the lack of attention to the psychosocial concerns of elderly patients was clearly documented by these data.

The third hypothesis, that doctors would be less responsive to psychosocial topics raised by older patients than to those raised by younger patients was confirmed. Doctors' responsiveness did not differ between younger and older patients when they themselves raised a topic for discussion. When patients raised psychosocial issues, however, doctors did respond significantly better in the younger patient interviews. Not only were there fewer psychosocial topics talked about in the older patient interviews but when older patients themselves raised such issues, doctors tended to be less responsive. Perhaps this unresponsiveness discouraged elderly patients from raising further psychosocial topics for discussion.

Mishler (1984) described doctors' "lack of attentiveness to patients' lifeworlds" (p. 184) in his sociolinguistic assessment of the physician-patient relationship. Other researchers and practitioners have also expressed their fears and concerns about the poor responsiveness of doctors to these important psychosocial issues (Ashworth et al., 1984; Williamson et al., 1981). This phenomenon clearly deserves further investigation for patients of all ages.

Although it is hazardous to generalize from this limited data set, several tentative recommendations can be made. First, patient educators and advocates for the elderly may wish to forewarn elderly patients that if they do have psychosocial concerns that require their physician's attention, they should take the lead in raising these issues in the medical encounter. Patients probably correctly anticipate that doctors are not as interested in and supportive about these issues as they are about biomedical concerns. Certainly geriatric clinical training should continue to emphasize the psychosocial aspects of care. Future geriatricians need to be instructed in interactional skills and techniques which will encourage discussion of the often difficult psychosocial concerns of the elderly.

New research questions are suggested by the results of this study: What are the specific psychosocial issues which are addressed, or not addressed, in elderly patients' medical encounters? How does doctor discounting of the psychosocial concerns of the elderly affect patient satisfaction, compliance, and health status? Do different health providers and different elderly patients in other practice settings communicate differently? What can elderly patients and their doctors do to encourage a more open discussion of psychosocial issues? How will current cost-containment efforts affect psychosocial discussions and physician responses?

Few investigators have examined the physician-elderly patient relationship (the exceptions are Adelson et al., 1982; Coe et al., 1984; Greene et al., 1986; Hatton, 1977). Geriatricians and gerontologists agree, however, that the content and the process and the specific language and behavior of doctors and their elderly patients require special investigation (Butler, 1978; Haug, 1981; Lawton, 1981). If claims are being made by geriatricians and gerontologists about the ageist nature of the medical encounter, data are needed to compare how doctors treat

older and younger patients. It is anticipated that the GIA instrument, which is currently being refined (Greene et al., 1986), will be useful in conducting the much needed research on the physician-elderly patient medical encounter.

References

Adelson, R., Nasti, A., Spratkin, J. N., Marinelli, R., Primavera, L. H., & Gorman, B. (1982). Behavioral ratings of health professionals' interactions with the geriatric patient. *The Gerontologist, 22,* 277–281.

Aneshensel, C., Frerichs, R., & Huba, G. (1984). Depression and physical illness: A multiwave, nonrecursive causal model. *Journal of Health and Social Behavior, 25,* 350–371.

Ashworth, C., Williamson, P., & Montano, D. (1984) A scale to measure physician beliefs about psychosocial aspects of patient care. *Social Science and Medicine, 19,* 1235–1238.

Ben-Sira, Z. (1984). Primary medical care and coping with stress and disease: The inclination of primary care practitioners to demonstrate affective behavior. *Social Science and Medicine, 21,* 485–498.

Butler, R. (1975). *Why survive? Being old in America.* New York: Harper and Row.

Butler, R. (1978). The doctor and the aged patient. In W. Reichel (Ed.), *The Geriatric Patient* (pp. 199–206). New York: HP Publishing Company.

Charon, R. (1982). Poised in equilibrium: Doctors and their patients. *Rhode Island Medical Journal, 65,* 29–35.

Coe, R., Prendergast, C. G., & Psathas, G. (1984). Strategies for obtaining compliance with medications regimens. *Journal of the American Geriatrics Society, 32,* 589–594.

Engel, G. (1977). The need for a new medical model: A challenge for biomedicine. *Science, 196,* 129–136.

Freidson, E. (1975). *Profession of medicine.* New York: Dodd, Mead & Company.

Greene, M., Adelman, R., Charon, R., & Hoffman, S. (1986). Ageism in the medical encounter: An exploratory study of the doctor-elderly patient relationship. *Language and Communication, 6,* 113–124.

Harris, I. B., Rich, E. C., & Crowson, T. W. (1985). Attitudes of internal medicine residents and staff physicians toward various patient characteristics. *Journal of Medical Education, 60,* 192–195.

Hatton, J. (1977). Nurses' attitude toward the aged: Relationship to nursing care. *Journal of Gerontological Nursing, 3,* 21–26.

Haug, M. (1979). Doctor patient relationships and the older patient. *Journal of Gerontology, 34,* 852–860.

Haug, M. (1981). Introduction. In M. Haug (Ed.), *Elderly patients and their doctors* (pp. xvii-xx). New York: Springer Publishing Company.

Heszen-Klemens, I., & Lapinska, E. (1984). Doctor-Patient interaction, patients' health behavior and effects of treatment. *Social Science and Medicine, 19,* 9–18.

Kleinman, A., Eisenberg, L., & Good, B. (1978). Culture, illness, and care: Clinical lessons from anthropologic and cross-cultural research. *Annals of Internal Medicine, 88,* 251–256.

Lawton, M. P. (1981). Research needs in understanding the physician-older patient relationship. In M. Haug (Ed.), *Elderly patients and their doctors* (pp. 179-190). New York: Springer Publishing Company.

Lipkin, M., Quill, T. E., & Napodano, R. J. (1984). The medical interview: A core curriculum for residencies in internal medicine. *Annals of Internal Medicine, 100,* 277–284.

Maletta, G. J. (1983). Neuropsychiatric problems in the elderly. In S. R. Gambert (Ed.), *Contemporary Geriatric Medicine* (pp. 299–338). New York: Plenum Publishing Corporation.

Marshall, V. (1981). Physician characteristics and relationships with older patients. In M. R. Haug (Ed.), *Elderly patients and their doctors* (pp. 94–118). New York: Springer Publishing Company.

Mishler, E. (1984). *The discourse of medicine.* New Jersey: Ablex Publishing Corporation.

Regier, D. A., Burke, J. D., Burns, B., Clare, A. W., Gulbinat, W., Lipkin, M., Spitzer, R. L., Williams, J., & Wood, M. (1987). A proposed classification of social problems and psychological symptoms for inclusion in a classification of health problems. In M. Lipkin & M. Kupka (Eds.), *Psychosocial factors affecting health* (pp. 153–184). New York: Praeger Publishers.

Parsons, T. (1951). *The social system.* New York: The Free Press.

Roter, D. (1977). Patient participation in the patient-provider interaction: The effects of patient question asking on the quality of interaction, satisfaction and compliance. *Health Education Monographs, 5,* 281–315.

Seldin, D. W. (1984). The medical model: Biomedical science as the basis for medicine. In P. R. Lee, C. L. Estes, & N. B. Ramsey (Eds.), *The Nation's Health* (pp. 55–62). San Francisco: Boyd & Fraser Publishing Company.

Shanas, E., & Maddox, G. (1976). Aging, health, and the organization of health resources. In R. Binstock & E. Shanas (Eds.), *Handbook of aging and the social sciences* (pp. 592–618). New York: Van Nostrand Reinhold Company.

Sterling, P., & Eyer, J. (1981). Biological basis of stress-related mortality. *Social Science and Medicine, 15E,* 3–42.

Stiles, W. B., Putnam, S. M., Wolf, M. H., & James, S. A. (1979). Verbal response mode profiles of patients and physicians in medical screening interviews. *Journal of Medical Education, 54,* 81–89.

Strain, J. (1981). Ageism in the medical profession. *Geriatrics, 36,* 158–165.

Svarstad, B. (1974). The doctor-patient encounter: An observational study of communication and outcome. Unpublished doctoral dissertation, University of Wisconsin, Madison.

Thomas, L. (1977). On the science and technology of medicine. In J. H. Knowles (Ed.), *Doing better and feeling worse: Health in the United States* (pp. 35–46). New York: W. W. Norton & Company, Inc.

Waitzkin, H., & Stoeckle, J. (1972). The communication of information about illness. *Advances in Psychosomatic Medicine, 8,* 180–215.

Wells, T. (1982). *Aging and health promotion.* Maryland: Aspen Systems Corporation.

West, C. (1984). *Routine complications: Troubles with talk between doctors and patients.* Bloomington: Indiana University Press.

Williamson, P., Beitman, B. D., & Katon, W. (1981). Beliefs that foster physician avoidance of psychosocial aspects of health care. *The Journal of Family Practice, 7,* 999–1003.

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Because the dynamics of elder abuse are not readily discernible, detection and intervention are possible only after abuse has occurred. Yet, some elder abuse can be prevented by systematic assessment of the older person and the potential caregiver, as well as of the family constellation. Research findings were used to identify high risk factors associated with elder abuse, factors that can be used to guide placement decisions.
Key Words: Elder abuse, Assessment, Risk factors

Preventing Elder Abuse: Identification of High Risk Factors Prior to Placement Decisions[1]

Jordan I. Kosberg, PhD,[2]

If the 1960s were devoted to child abuse and the 1970s to spouse abuse, then the 1980s have certainly been the decade devoted to elder abuse. Since the latter part of the 1970s to the present, researchers, academicians, professionals in applied settings, and policy-makers at all levels of government have given increasing attention to elder abuse. The small number of monographs and articles on the topic that appeared prior to the early 1980s has become a plethora of annotated bibliographies (Johnson et al., 1985), critical reviews (Yin, 1985), and books (Kosberg, 1983; Pillemer & Wolf, 1986; Quinn & Tomita, 1986). Hearings by the U.S. House of Representatives Select Committee on Aging and subsequent publication of Committee Reports (1980, 1981, 1985), the report by a Surgeon General's Task Force on Violence (1986), and Congressional efforts to establish a National Center on Elder Abuse (Quinn & Tomita, 1986) have all manifested and contributed to a widespread concern about elder abuse.

The multitude of empirical investigations of the incidence, causes, effectiveness of interventions, and consequences of elder abuse have been paralleled by the number of critical assessments of these research efforts (Hudson, 1986; Johnson, 1986; O'Rourke, 1981; Pedrick-Cornell & Gelles, 1982; Yin, 1985). These criticisms have not been unfounded. Investigators have used various definitions of abuse, and, also, surveys of limited sample size, geographic area, and service populations. These studies are too idiosyncratic to be generalizable. Yet these earlier efforts have been hypotheses-generating and because knowledge development and theory-building are cumulative, these efforts to explore and describe the dynamics of elder abuse are needed before more sophisticated work can be undertaken.

Paralleling the empirical research on elder abuse has been the attention given to the problem by social, legal, and health care professionals. Indeed, academicians, community-based professionals, and the general public have often developed close working relationships with one another to address elder abuse. Programmatic efforts at the community level have been focused on community-wide education, detection mechanisms, and coordination of resources (Caro, 1986; Douglass & Hickey, 1983; Hooyman, 1983; Sager, 1986). In turn, community resources have been identified to help family caregivers find respite and other alternatives to their often exhaustive and time-consuming efforts to provide care for aged relatives. Professional interventions that can aid both the abuser and the abused have been widely reported (Kosberg, 1985; Rathbone-McCuan, 1980; Steuer, 1983).

Invisibility of the Problem

Assessment protocols have been developed (Hwalek & Sengstock, 1986; Quinn & Tomita, 1986; Sengstock & Hwalek, 1985) that are focused upon physical and behavioral symptoms of elder abuse. These protocols are focused on identifying abuse but were developed with the assumption that problems can be identified after abuse has occurred. Protective services and mandatory reporting of elder abuse necessitated the identification of potential problems (Faulkner, 1982; Salend et al., 1984). Despite these measures, elder abuse is an invisible problem. In *Elder Abuse: The Hidden Problem* (U.S. Congress, House Select Committee on Aging, 1980) it was estimated that although one-third of the actual cases of child abuse is reported, only 1 out of 6 cases of elder abuse is reported. Several explanations for the invisibility of elder abuse reflect factors which affect both research and applied efforts.

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First, the family is sacrosanct and interference with the family life by outsiders is not tolerated, even when professionals feel justified in intervening when there are family dysfunctions. Family members (in this instance, the abused as well as the abuser) may engage in a conspiracy of silence and reject attempts by outsiders to explore or intervene in their lives.

Second, because abuse occurs within the confines of a private dwelling, it is hidden from outside scrutiny. The problem is compounded when there is a low population density in the neighborhood, as is so in some suburban and rural areas. Unlike the circumstances of small children, whose abuse can be detected outside the home, there are no requirements (such as school attendance and required health check-ups) or imperatives (such as outdoor play) for elderly people which necessitate them leaving their dwellings and, thus, being seen by non-family members.

Third, the elderly are reluctant to report abuse by relatives. Lau and Kosberg (1979) found that one-third of the elderly who were judged to have been abused denied any problem. It is not difficult to understand the reasons the elderly do not report abuse. They may believe the problem is a family affair. They may fear reprisals by the abuser or may be embarrassed or ashamed of the behavior of the abusive relative. The elderly may be reluctant to initiate legal or criminal action against a relative for fear that the solution will be worse than the problem itself, that is, institutionalization. They may believe they are being paid back for their earlier abusive behavior toward others (a child or spouse). Finally, when an older person is dependent upon a relative, he may believe that he is the cause of the problem and, thus, should not report a problem he has caused.

Fourth, elder abuse may be undetected because of the failure of professionals to detect the problem or to be aware that elder abuse may have occurred. As Rathbone-McCuan (1980) has stated: "Identification of and intervention in cases of physical abuse and purposeful neglect of the elderly within the context of the family are rare; because professionals in the field seem unaware that the phenomenon exists, they fail to recognize cues of willful abuse and neglect." A concomitant of this lack of awareness is the possibility that explanations for possible bruises, abrasions, contusions, and malnutrition are related to the impairments of old age (poor memory, lack of balance, dizziness) and are accepted without question.

Fifth, the invisibility of elder abuse can result from the failure of professionals to report the problem, even in states having mandatory reporting legislation. Although empirical verification is lacking, the reluctance to report child abuse by professionals (who fear legal action by alleged abusers, time spent in the criminal justice system, or who are uncertain whether abuse has occurred) may also be characteristic of professional responses to mandatory reporting laws for elder abuse. It is suspected, moreover, that not all professionals in states with mandatory reporting legislation are aware of their responsibilities (O'Brien, 1986).

For these reasons, elder abuse often remains invisible. Community efforts, protective services and mandatory reporting legislation affect only a fraction of abused elderly and only after abusive behavior has occurred. Accordingly, it is important to emphasize the appropriate placement of frail and vulnerable elderly persons in the care of family members (or others).

> The family, in general, and children, specifically, have been used as a panacea in the care of the elderly by legal, social service, and health care systems. Judges turn to family members as guardians for confused and incompetent elderly. Social workers often engage the family in the solution to a problem of dependency. Health care professionals believe that a good discharge plan for elderly patients is if they go to the home of [a spouse or] grown children (Kosberg, 1983).

Professionals and others should not assume that family membership prevents people from engaging in abusive behavior; family members have been found the major perpetrators of elder abuse. The instinctive and uncritical use of family members as caregivers of vulnerable elderly should not continue. A systematic assessment of the capacity of potential (or present) family caregivers to provide non-abusive care is needed.

Preventing High Risk Placements

To facilitate such assessments, those entrusted with decision-making responsibilities should be familiar with the results of studies on the dynamics related to the abuse of older individuals. Specifically, those in the helping professions need to be aware of the characteristics of high risk elderly and high risk caregivers, so as to be duly cautious in making placement decisions involving such individuals.

Professional assessments of caregivers may prevent only a small proportion of elder abuse. Although the exact proportion is unknown, health and social service personnel are not in contact with the majority of those who are, or are considering, caring for vulnerable elderly persons. Such caregivers can include elderly spouses, adult children who become dependent on elderly parents, and family members who voluntarily take on such responsibilities. When the opportunity exists, placement decisions for impaired elderly persons should be guided by professionals knowing the possible causes of elder abuse and maltreatment.

It is not yet possible specifically and unequivocally to identify those variables related to either being abused or an abuser. As noted earlier, research on elder abuse has been criticized for its variation in definitions, methods, and samples, making it difficult to integrate findings and generalizations. Furthermore, common elements which indicate elder abuse have not always been identified by researchers, however the elements are defined and measured. Elder abuse is a general concept, composed of

[illegible]ous types of abusive or negligent behavior and [illegible]earchers have found different types of abuse to be [illegible]ociated with different variables (Giordano & Gior[illegible]no, 1983; Wolf, 1986). Another issue preventing [illegible]finitive statements about causes of abusive behav[illegible]r is discussed by Hudson (1986), who commented [illegible]n the sequencing of abuse dynamics:

> [illegible]general, existing studies have not been able to deter[illegible]ine the causes of elder neglect and abuse. Thus, the [illegible]ndings document the existence and forms of mistreat[illegible]ent, but they do not provide clear or consistent informa[illegible]on on the antecedents, causes, or consequences. . . . For [illegible]ample, a recurrent finding has been that both the [illegible]bused elder and the abusive caregiver experienced exces[illegible]ive stress. But it is not clear whether stress is an anteced[illegible]ent or a consequence of mistreatment. . . . Stress does [illegible]eem to be an intensifier of potential mistreatment, but it is [illegible]ot a clear predictor, since most families providing elder [illegible]care experience stress and yet do not mistreat their elders.

[illegible] final note of caution concerns the propensity for ex[illegible]rapolating theory for the dynamics of elder abuse [illegible]from findings on child abuse and spouse abuse. In this early period of investigation of elder abuse, such leaps are understandable, but, as Pillemer (1986) pointed out, it is necessary to consider the uniqueness of being old in relationship to patterns of family violence. The validity of the extrapolation of findings from younger abused groups to elderly abused people has yet to be substantiated.

Having argued that the diversity of research findings and practice experiences preclude definitive causative knowledge, that different types of abuse or neglect have been found to be associated with different personal and situational variables, and that knowledge gained from abuse of other younger family members has not been systematically verified by the study of elder abuse, can risk factors be identified? The answer is tentatively "yes." Sufficient knowledge of the dynamics of elder abuse exists to provide general guidelines for consideration by those in the helping professions who make placement decisions for frail and vulnerable older persons.

In considering a possible framework for ordering risk factors, most writers on the topic of elder abuse, whether by intention or implication, have discussed a theoretical basis for conceptualizing the dynamics. Wolf (1986) and Pillemer (1986) have identified five dimensions: (1) intra-individual dynamics, (2) intergenerational transmission of violence, (3) dependency and exchange relations, (4) external stress, and (5) social isolation. Phillips (1986) has discussed a situational model, social exchange theory, and symbolic interaction. George (1986) has discussed the norms of reciprocity and solidarity as related to caregiver burden. Yin (1985) has used a family transition theory for an explanation of elder abuse. And Kosberg (1980) has reviewed a variety of possible explanations for elder abuse: a psychopathological model, sociological approaches, a social psychological model, social exchange theory, a life crisis model, social structural theory, an intergenerational conflict view, and a human ecological model.

Certainly each case of abuse is different, each type of abuse possibly related to different causative dynamics and each theoretical framework is only partially effective in explaining abusive behavior. In considering the prevention of elder abuse, areas for consideration and assessment by those who make placement decisions are needed, as well as a guide for more intensive investigations. Based on a general synthesis of research findings, a simple framework has been developed (Kosberg et al., 1985) for the identification of high risk factors in three areas: older person, major caregiver, and family constellation. The items in these three areas are not necessarily mutually exclusive.

High Risk Elderly

No group of elderly persons is immune to the possibility of abusive behavior. Based on research findings and experiences of service providers, however, the following characteristics of some older persons appeared to make them especially vulnerable to elder abuse.

Female. Simply because there are more older women than older men, there are more abused older women (Giordano & Giordano, 1983; Wolf et al., 1982). Older women also are less likely to resist abusive behavior and are more vulnerable to sexual molestation.

Advanced age. The older the person, the higher the risk of abusive behavior (Kosberg, 1980; O'Malley et al., 1983). Advanced age, of course, is associated with physical and mental impairments and an inability to resist adversities.

Dependent. Older persons who are dependent upon others for their care are more vulnerable (Gelles, 1974; Maddox, 1975). Economic dependency can result in hostility by a caregiver and lead to abuse.

Problem drinker. An older person who is an alcoholic or a problem drinker is susceptible to abusive behavior because of an inability to care or tend for himself. Additionally, an older problem drinker may live with an alcoholic spouse or adult child, either of whom may be the abuser (U.S. Congress, House Select Committee on Aging, 1981).

Intergenerational conflict. Problems between a parent and child do not decrease with the passage of time; indeed, they may become intensified by the increasing dependency of the parent (Blenkner, 1965; Cavan, 1956; Farrar, 1956). Poor intergenerational relationships at an earlier period are an indication of potential problems in the present and future.

Internalizes blame. An older person who engages in self-blame may be especially vulnerable to elder abuse through self-deprecating behavior and failure to acknowledge that abuse is the fault of the abuser (Kosberg, 1985; Quinn & Tomita, 1986).

Excessive loyalty. An older person who has a strong sense of loyalty to an abusive caregiver (whether a relative or not) will probably not seek to

report the problem (Kosberg, 1985; Quinn & Tomita, 1986).

Past abuse. Older persons who have been subjected to abusive behavior by family in the past are candidates for similar treatment when they display increasing impairments and dependency (Sengstock & Hwalek, 1985).

Stoicism. Whether a personality trait, or based on a philosophy of tolerance, resignation, or understanding, some persons accept their troubles without seeking relief. If known as such by an abuser, the older person may suffer from abusive behavior which may continue for lengthy periods of time (Lau & Kosberg, 1979; Sengstock & Hwalek, 1985).

Isolation. An older person isolated from others may be especially vulnerable to abusive behavior because of the lack of detection and intervention by neighbors, friends, other relatives, or service providers (Garbarino, 1977; Wolf et al., 1982). Geographic isolation of the caregiver or older person may increase the probability that abuse may occur.

Impairment. Elder abuse has been found to be associated with the extent and severity of physical or mental impairments (Block & Sinnot, 1979; Wolf et al., 1982). This is related not only to the greater dependency of the older person, but also to the greater demands and responsibilities for the caregiver, which can result in stress and frustrations.

Provocative behavior. As with individuals in any group, some elderly can be overly-demanding, ungrateful, ingratiating, and otherwise unpleasant. Such older persons, impaired and dependent, can aggravate already stressed and overburdened caregivers (Douglass et al., 1980; Kosberg & Cairl, 1986). Elder abuse can result from anger, coupled with the pressures of care on the caregiver.

High Risk Caregivers

It is commonly assumed that there will be a major caregiver for an older person (e.g., spouse, adult child). Often, there may be others who share in the responsibility. Finding multiple abusers of elderly persons is not uncommon (Lau & Kosberg, 1979). Although certain characteristics of major caregivers need to be assessed, others who share responsibilities should also be assessed.

Findings from studies on elder abuse, and also on child and spouse abuse, have yielded clues to the characteristics of individuals who may be abusive caregivers for vulnerable and frail elderly. Although the following characteristics, singly or in combination, are not necessarily predictive of abusive behavior, service providers (and others) may find them helpful in identifying those individuals who may be incompetent or inappropriate caregivers for dependent elderly persons.

Problem drinker. A problem drinker may act out negative feelings under the influence of alcohol (O'Malley et al., 1983; Pillemer, 1986).

Medication or drug abuser. An abuser may be unaware of the consequences of poor care, or have distorted judgments and perceptions, resulting from substance abuse (Steele & Pollock, 1968; Wolf et al., 1982).

Senile dementia or confusion. Some caregivers (e.g., elderly children, spouse, or neighbor) are, themselves, psychologically impaired and cannot provide needed care or do not understand the consequences of poor care or treatment (Kosberg & Cairl, 1986).

Mental or emotional illness. A caregiver with emotional problems is a risky individual to care for a dependent and frail older person (Kempe, 1962; Wolf et al., 1982).

Caregiving inexperience. It cannot be assumed that an individual who has not had experience caring for the needs of another will be a good caregiver for a dependent person. Whether out of inexperience or self-centeredness, such individuals may be ineffective or hostile in their role of caring for a dependent elderly person (Garbarino, 1977; Kosberg, 1980).

Economically troubled. Researchers (Douglass et al., 1980; Gelles, 1974) have found that frustrations of unemployment are related to abuse of a family member. Similarly, if a caregiver views the dependent older person as a drain on limited financial resources, the caregiver should be considered a high risk.

Abused as a child. It has been found that adult children who were abused are potential elder abusers (Gelles, 1974; Sengstock & Hwalek, 1985). Their abuse can be a consequence of deliberate retaliation, learned behavior, or unconscious hostility. (Relatedly, spouse abusers may be maltreated by resentful adult children or by the abused spouse who has assumed the role as caregiver for the dependent and formerly abusive individual.)

Stressed. Individuals who are facing emotional, social, professional or economic stresses may become depressed, frustrated, or distraught (Justice & Duncan, 1976; O'Brien, 1971). In that stress may be an antecedent of abuse (Hudson, 1986), placing an older person in the care of a stressed individual is questionable.

Unengaged outside the home. A caregiver who is not linked with informal or formal contacts (such as family, friends, co-workers, organizations, or associations) may be isolated from others with whom to discuss caregiving problems or receive support, emotional or otherwise (Lystad, 1975).

Blamer. An individual who blames the older relative for problems related to the pressures or burdens of providing care may well direct the anger toward the older person (Sengstock & Hwalek, 1985).

Unsympathetic. Some persons are unsympathetic to the needs of others. Such callous individuals may not be able to care for dependent elderly persons (Johnson & Bursk, 1977; Sengstock & Hwalek, 1985).

Lacks understanding. It is important that one who cares for a dependent elderly person has an understanding of the physical and emotional problems of the elderly person and their consequences. A lack of such an understanding may be translated into inap-

propriate care (Block & Sinnott, 1979; Quinn & Tomita, 1986).

Unrealistic expectations. A caregiver should not hold unrealistic expectations regarding the condition of an older person, the prognosis for change, and the care which will be needed (Quinn & Tomita, 1986; Sengstock & Hwalek, 1985). Such faulty expectations can lead to disillusionment, anger or frustration and, possibly, to abusive behavior.

Economically dependent. It has been found that in some cases the absuer has been dependent upon the older individual (Pillemer & Finkelhor, 1985; Wolf et al., 1982). Whether the abusive behavior results from greed, resentment or anger, the reactions to dependency by the caregiver need to be explored.

Hypercritical. Some individuals are quite critical of others and can become impatient (Sengstock & Hwalek, 1985). Such individuals may not be good candidates as caregivers for ill and dependent elderly persons.

High Risk Family Systems

Families range greatly in size and complexity from a single individual (adult child, sibling, spouse) to an extensive family network. Sometimes family members do not live in the vicinity or are otherwise unavailable or inappropriate to provide assistance to an elderly relative or to relieve the major caregiver. The following characteristics need to be assessed in any evaluation of the family care system.

Lack of family support. If caregivers have no other relatives available to assist in the care of an older relative, or to provide periodic respite to the caregiver, the total burden of responsibility is placed on their shoulders. The unrelenting and constant demands resulting from providing care may overload the person and result in abusive or ineffective care (George & Gwyther, 1986; Gibson, 1984).

Caregiver reluctance. Reluctance or hesitancy to provide care for an older person can possibly predict poor care and should prompt service providers to consider alternative arrangements for the care of the older person (Cairl et al., 1984).

Overcrowding. Placement of an elderly person in the dwelling of a family which is already overcrowded may prove unfortunate for not only the older person but also for others in the family (Kosberg & Cairl, 1986; Noelker, 1982). Overcrowding and lack of privacy have been found to lead to intrafamily conflict and could result in anger toward the older person, who is seen as the cause of the inconvenience.

Isolation. Although isolation itself is not a cause of abusive behavior, families who are isolated from others place a vulnerable older person in an invisible position and abusive behavior may go undetected and unabated (Caplan & Killiea, 1976; Pillemer, 1986).

Marital conflict. Placement of an older person with a family undergoing marital difficulties should be avoided (Giordano & Giordano, 1983; U.S. Congress, House Select Committee on Aging, 1981). The stress and anger from marital problems may spill over and result in the abuse of an older relative (especially a mother- or father-in-law).

Economic pressures. Families faced with economic pressures (resulting from unemployment or other economic problems) may resent caring for an older person (Gelles, 1974; Lau & Kosberg, 1979). Additionally, care may necessitate that one of the wage earners (often adult daughter or daughter-in-law) quit work to care for the older person. Therefore the economic problems intensify and hostility may result.

Intra-family problems. Some families are already subject to burdens, prior to placement of an older relative in their care. For example, one member of the family may be a special problem for the others (e.g., alcoholic father, withdrawn or acting out adolescent). It would be unfortunate to add an additional burden which could result in even greater family stress and, possibly, to elder abuse (Straus et al., 1980).

Desire for institutionalization. Any family which seeks institutionalization for an elderly relative rather than caring for the person in their own home should be carefully assessed (Keller et al., 1986; Zarit et al., 1986). Service providers should be cautious about pushing family care. It may be that the family is already burdened. Also, reluctance may reflect past intergenerational conflicts. Ideally, the motivation of families to care for elderly relatives should be based on a genuine commitment and the care should be provided voluntarily and without pressure from service providers.

Disharmony in shared responsibility. The availability of informal caregivers to share responsibilities does not guarantee the quality of interpersonal relationships in the helping process. There is some suggestion (Fiore et al., 1983; Smilkstein, 1978) that disharmony between family caregivers can exacerbate the stress on the major caregiver of an elderly person. The possibility of such disharmony should be explored.

Pre-Placement Screening

Designating a relative a guardian, placing an elderly client with a child, or discharging an elderly patient to the family without adequate assessment may be viewed as a panacea by service providers but may result in great problems for the elderly person (Kosberg, 1983).

And for the family. Accordingly, then, indiscriminate placement of a vulnerable older person should be strongly discouraged, even in the face of time pressures and heavy case loads, or the insistent demands of family members. The need for careful and systematic screening of potential caregivers is warranted by the findings of family abuse of elderly relatives. This is not an indictment of family care. Indeed, the great majority of care by family members is humane and effective, often given lovingly at great personal sacrifice by family members (Surgeon General's Workshop on Violence and Public Health, 1986). But unfortunately, elderly persons can be entrusted to the care of individuals who are totally unsuited to care

for dependent persons of any age. Bad things can result from good intentions. That is, the desire to care for an elderly person may overwhelm a caregiver and family system and result in mounting tensions and pressures which erupt into abusive behavior out of frustration and fatigue. Such problems may occur when the older person must reside with the caregiver, when the caregiver resides with the older person, or when the caregiver provides major assistance to an older person who lives in a separate dwelling.

The assessment of potential or actual caregivers of impaired older persons should include two areas of investigation: the presence of high risk indicators and the perceptions of family members regarding care provision. A High Risk Placement Worksheet (HRPW), shown in Chart 1, has been developed for use by those making placement decisions for vulnerable elderly persons. The HRPW allows for the systematic assessment of the quantitative and qualitative characteristics of the elderly person, major caregiver, and family system by a trained professional. It is not the purpose of the worksheet to arrive at a cumulative high-risk rating but, rather, to signal potential problems resulting from the characteristics of the older person, caregiver, or family system. Included on the HRPW are some questions from Kosberg's Informal Support Profile which seek information from the older person and the (potential) major caregiver regarding the quality of the relationship between them and the desire for placement of the older person into the care of the family member. These questions are asked independently of both individuals and, in cases where incongruities in responses between respondents are noted, further exploration by the professional should take place prior to the placement decision.

To elicit the subjective perceptions of anticipated (or actual) consequences of providing care to an impaired elderly relative, the Cost of Care Index (CCI) has been developed as a case management tool to assist professionals in their placement decisions (Kosberg & Cairl, 1986). Explored by the CCI are the perceptions of potential (or actual) caregivers in five areas: Personal and Social Restrictions, Physical and Emotional Health, Value (of providing care), Economic Costs (direct and indirect), and Care Recipient as Provocateur. The CCI has been used to assist not only in assessment and screening, but also in identification of potential problem areas for professional guidance for caregivers who reflect unrealistic optimism (or pessimism) about the caregiving role. Whether or not the HRPW or CCI is used, however, is not critical. As Kosberg and Cairl (1986) stated at the conclusion of their article on the CCI: "What is important . . . is that some assessment is made of the appropriateness of family members as care providers for ill and dependent elderly and the actual or anticipated consequences perceived by these care providers." To prevent the possibility of inappropriate placements (and elder abuse), this assessment includes knowledge of high risk factors as well as the perceptions of family members.

Chart 1. High Risk Placement Worksheet

Name of Client/Patient: _____

A. Characteristics of Older Person	Existence of Risks
1. Female	
2. Advanced Age	
3. Dependent	
4. Problem Drinker	
5. Intergenerational Conflict	
6. Internalizer	
7. Excessive Loyalty	
8. Past Abuse	
9. Stoicism	
10. Isolation	
11. Impairment	
12. Provocative Behavior	

B. Characteristics of Caregiver	Existence of Risks
1. Problem Drinker	
2. Medication/Drug Abuser	
3. Senile Dementia/Confusion	
4. Mental/Emotional Illness	
5. Caregiving Inexperience	
6. Economically Troubled	
7. Abused as Child	
8. Stressed	
9. Unengaged Outside the Home	
10. Blamer	
11. Unsympathetic	
12. Lacks Understanding	
13. Unrealistic Expectations	
14. Economically Dependent	
15. Hypercritical	

C. Characteristics of Family System	Existence of Risks
1. Lack of Family Support	
2. Caregiving Reluctance	
3. Overcrowding	
4. Isolation	
5. Marital Conflict	
6. Economic Pressures	
7. Intra-Family Problems	
8. Desire for Institutionalization	
9. Disharmony in Shared Responsibility	

D. Congruity of Perceptions Between Older Person and (Potential) Caregiver	Existence of Risks
1. Quality of Past Relationship	
a. Perception of Older Person _____	
b. Perception of Caregiver _____	
2. Quality of Present Relationship	
a. Perception of Older Person _____	
b. Perception of Caregiver _____	
3. Preferred Placement Location	
a. Perception of Older Person _____	
b. Perception of Caregiver _____	
4. Ideal Placement Location	
a. Perception of Older Person _____	
b. Perception of Caregiver _____	

Conclusion

Although ample evidence of variables associated with elder abuse exists, inappropriate placements continue to result in problems for vulnerable elderly persons. Most community programs and state legislation are focused upon the problem of elder abuse after it has occurred and necessitate the detection and reporting of abuse. Yet the problem is essentially invisible and greater attention should be given to assessments of potential caregivers of impaired older persons. Assessments should include attention to high risk indicators for the aged person, caregiver, and family system, along with the perceptions of family members. Such assessments will not eliminate the problem, but with public education, professional awareness, detection protocols, alternatives for and support of family care, and social legislation may contribute to a comprehensive effort in preventing this form of abuse.

Certainly what is needed is the continuation of collaboration between researchers, legislators, practitioners, professionals, and the general public. A list of risk factors which have been found to be associated with abusive behavior has been presented. Those working with the elderly and their families need to consider the possible placement implications of these factors. Further research is needed to better conceptualize and operationalize the prevention of elder abuse and to identify causative variables. This will enhance the predictive validity of any assessment protocol to prevent or detect elder abuse.

Elder abuse will continue as long as ageism and violence exist (Kosberg, 1986). Quinn and Tomita (1986) have also noted the contribution of societal values to elder abuse: ageism, attitudes toward the disabled, sexism, and greed. Elder abuse results from the dynamic interaction between personal, family, social and cultural values, priorities, and goals. Therefore, attention must be given to those factors which, although not causing abuse, contribute to its likelihood: poverty and unemployment, lack of community resources, intra-family cycles of abuse, and personal hedonism. Specifically proposed is the assessment of potential caregivers prior to the placement of an elderly person as one method for dealing with the problem of elder abuse. Should such pre-placement assessments prove effective, the need to rely on detection and intervention after elder abuse has occurred will be reduced.

References

Blenkner, M. (1965). Social work and family relationships in later life with some thoughts on filial maturity. In E. Shanas & G. Streib (Eds.), *Social structure and family generational relations*. Englewood Cliffs, NJ: Prentice Hall.

Block, M. R., & Sinnot, J. D. (Eds.) (1979). *The battered elderly syndrome*. College Park, MD: University of Maryland Center on Aging.

Cairl, R. E., Keller, D. M., & Kosberg, J. I. (1984, November). *Factors associated with the propensity to assume a caregiver role*. Paper presented at the Meeting of the Gerontological Society of America, San Antonio, TX.

Caplan, G., & Killiea, M. (1976). *Support systems and mutual help*. New York: Grune and Stratton.

Caro, F. G. (1986). Relieving informal caregiver burden through organized services. In K. A. Pillemer & R. S. Wolf (Eds.), *Elder abuse: Conflict in the family*. Dover, MA: Auburn House Publishing Company.

Cavan, R. (1956). Family tensions between the old and the middle aged. *Marriage and Family Living, 18*, 323–327.

Douglass, R. L., & Hickey, T. (1983). Domestic neglect and abuse of the elderly: Research findings and a systems perspective for service delivery planning. In J. I. Kosberg (Ed.), *Abuse and maltreatment of the elderly: Causes and interventions*. Littleton, MA: John Wright-PSG.

Douglass, R. L., Hickey, T., & Noel, C. (1980). *A study of maltreatment of elderly and other vulnerable adults*. Ann Arbor, MI: Institute of Gerontology, University of Michigan.

Farrar, M. (1956). Mother-daughter conflicts extended into later life. *Social Casework, XXXLI*, 202–207.

Faulkner, L. R. (1982). Mandating the reporting of suspected cases of elder abuse: An inappropriate, ineffective and ageist response to the abuse of older adults. *Family Law Quarterly, XVI*, 69–91.

Fiore, J., Becker, J., & Coppel, D. B. (1983). Social network interactions: A buffer or a stress? *American Journal of Community Psychology, 11*, 423–439.

Garbarino, J. (1977). The human ecology of child maltreatment: A conceptual model for research. *Journal of Marriage and the Family, 39*, 721–735.

Gelles, R. (1974). Child abuse as psychopathology: A sociological critique and reformulation. In S. Steinmetz & M. Straus (Eds.), *Violence in the family*. New York: Dodd, Mead.

George, L. K. (1986). Caregiver burden: Conflict between norms of reciprocity and solidarity. In K. A. Pillemer & R. S. Wolf (Eds.), *Elder abuse: Conflict in the family*. Dover, MA: Auburn House Publishing Company.

George, L. K., & Gwyther, L. P. (1986). Caregiver well-being: A multidimensional examination of family caregivers of demented adults. *The Gerontologist, 26*, 253–259.

Gibson, M. J. (1984). Family support patterns, policies, and programs. In C. Nusberg (Ed.), *Innovative aging programs abroad: Implications for the United States*. Westport, CN: Greenwood Press.

Giordano, N. H., & Giordano, J. A. (1983, November). *Family and individual characteristics of five types of elder abuse: Profiles and predictors*. Paper presented at the Gerontological Society of America, San Francisco, CA.

Hooyman, N. R. (1983). Elderly abuse and neglect: Community interventions. In J. I. Kosberg (Ed.), *Abuse and maltreatment of the elderly: Causes and interventions*. Littleton, MA: John Wright-PSG.

Hudson, M. F. (1986). Elder mistreatment: Current research. In K. A. Pillemer & R. S. Wolf (Eds.), *Elder abuse: Conflict in the family*. Dover, MA: Auburn House Publishing Company.

Hwalek, M. A., & Sengstock, M. C. (1986). Assessing the probability of abuse of the elderly: Toward development of a clinical screening instrument. *Journal of Applied Gerontology, 5*, 153–173.

Johnson, T. (1986). Critical issues in the definition of elder mistreatment. In K. A. Pillemer & R. S. Wolf (Eds.), *Elder abuse: Conflict in the family*. Dover, MA: Auburn House Publishing Company.

Johnson, E. S., & Bursk, B. J. (1977). Relationships between the elderly and their adult children. *The Gerontologist, 17*, 90–96.

Johnson, T. F., O'Brien, J. G., & Hudson, M. F. (1985). *Elder neglect and abuse: An annotated bibliography*. Westport, CN: Greenwood Press.

Justice, B., & Duncan, D. (1976). Life crisis as a precursor to child abuse. *Public Health Reports, 91*, 110–115.

Keller, D. M., Cairl, R. C., & Kosberg, J. I. (1986, November). *Risk factors for institutionalization of demented patients attending daycare*. Paper presented at the Meeting of the Gerontological Society of America, Chicago, IL.

Kempe, C. (1962). The battered child syndrome. *Journal of the American Medical Association, 181*, 17–24.

Kosberg, J. I. (1980, November). *Family maltreatment: Explanations and interventions*. Paper presented at the Meeting of the Gerontological Society of America, San Diego, CA.

Kosberg, J. I. (1983). The special vulnerability of elderly parents. In J. I. Kosberg (Ed.), *Abuse and maltreatment of the elderly: Causes and interventions*. Littleton, MA: John Wright-PSG.

Kosberg, J. I. (1985). Assistance to crime and abuse victims. In A. Monk (Ed.), *Handbook of gerontological services*. New York: Van Nostrand Reinhold Company.

Kosberg, J. I. (1986). Testimony before the U.S. Senate Subcommittee on children, family, drugs, and alcoholism. *Domestic violence and public health*. Washington, DC: United States Government Printing Office.

Kosberg, J. I., & Cairl, R. E. (1986). The cost of care index: A case management tool for screening informal care providers. *The Gerontologist, 26*, 273–278.

Kosberg, J. I., Burton, B., & Burr, J. J. (1985). *Elder abuse and protective services*. Tampa, FL: Suncoast Gerontology Center, University of South Florida.

Lau, E. E., & Kosberg, J. I. (1979). Abuse of the elderly by informal care providers. *Aging*, September–October, 10–15.

Lystad, M. (1975). Violence at home: A review of the literature. *American Journal of Orthopsychiatry, 45*, 328–345.

Maddox, G. (1975). Families as context and resource in chronic illness. In S. Sherwood (Ed.), *Issues in long term care*. New York: Halstead Press.

Noelker, L. S. (1982, November). *Environmental barriers to family caregiving*. Paper presented at the Meeting of the Gerontological Society of America, Boston, MA.

O'Brien, J. (1971). Violence in divorce prone families. *Journal of Marriage and the Family, 33*, 692–698.

O'Brien, J. (1986, November). *Elder abuse: Barriers to identification and intervention*. Paper presented at the Meeting of the Gerontological Society of America, Chicago, IL.

O'Malley, T. A., Everitt, D. E., O'Malley, H. C., & Campion, E. W. (1983). Identifying and preventing family-mediated abuse and neglect of elderly persons. *Annals of Internal Medicine, 98*, 998–1005.

O'Rourke, M. (1981, May). *Elder abuse: The state of the art*. Paper prepared for the Meeting of the National Conference on the Abuse of Older Persons, Cambridge, MA.

Pedrick-Cornell, C., & Gelles, R. J. (1982). Elder abuse: The status of current knowledge. *Family Relations, 31*, 457–465.

Phillips, L. R. (1986). Theoretical explanations of elder abuse: Competing hypotheses and unresolved issues. In K. A. Pillemer & R. S. Wolf (Eds.), *Elder abuse: Conflict in the family*. Dover, MA: Auburn House Publishing Company.

Pillemer, K. A. (1986). Risk factors in elder abuse: Results from a case-control study. In K. A. Pillemer & R. S. Wolf (Eds.), *Elder abuse: Conflict in the family*. Dover, MA: Auburn House Publishing Company.

Pillemer, K. A., & Wolf, R. S. (Eds.) (1986). *Elder abuse: Conflict in the family*. Dover, MA: Auburn House Publishing Company.

Pillemer, K., & Finkelhor, D. (1985, October). *Domestic violence against the elderly: A discussion paper*. Paper prepared for the Surgeon General's Workshop on Violence and Public Health, Leesburg, VA.

Quinn, M. J., & Tomita, S. K. (1986). *Elder abuse and neglect: Causes, diagnosis, and intervention strategies*. New York: Springer Publishing Company.

Rathbone-McCuan, E. (1980). Elderly victims of family violence and neglect. *Social Casework, 61*, 296–304.

Sager, A. (1986). Mobilizing adequate home care resources: A mutual aid response to stress within the family. In K. A. Pillemer & R. S. Wolf (Eds.), *Elder abuse: Conflict in the family*. Dover, MA: Auburn House Publishing Company.

Saland, E., Kane, R. A., Satz, M., & Pynoos, J. (1984). Elder abuse reporting: Limitations of statutes. *The Gerontologist, 24*, 61–69.

Sengstock, M. C., & Hwalek, M. (1985). *Comprehensive index of elder abuse*. Detroit, MI: Wayne State University.

Smilkstein, G. (1978). The family APGAR: A proposal for a family function test and its use by physicians. *The Journal of Family Practice, 6*, 1231–1239.

Steele, B., & Pollock, C. (1968). A psychiatric study of parents who abuse infants and small children. In R. Helfner (Ed.), *The battered child*. Chicago, IL: The University of Chicago Press.

Steuer, J. L. (1983). Abuse of the physically disabled elderly. In J. I. Kosberg (Ed.), *Abuse and maltreatment of the elderly: Causes and interventions*. Littleton, MA: John Wright-PSG.

Straus, M., Gelles, R., & Steinmetz, S. (1980). *Behind closed doors: Violence in the American family*. Garden City, NY: Anchor/Doubleday.

Surgeon General's Workshop on Violence and Public Health. (1986). Washington, DC: Health Resources and Services Administration, U.S. Public Health Services.

U.S. Congress, House Select Committee on Aging (1980). *Elder abuse: The hidden problem*. Washington, DC: United States Government Printing Office.

U.S. Congress, House Select Committee on Aging (1981). *Physical and financial abuse of the elderly*. Washington, DC: United States Government Printing Office.

U.S. Congress, House Select Committee on Aging (1985). *Elder abuse*. Washington, DC: United States Government Printing Office.

Wolf, R. S. (1986). Major findings from three model projects on elderly abuse. In K. A. Pillemer & R. S. Wolf (Eds.), *Elder abuse: Conflict in the family*. Dover, MA: Auburn House Publishing Company.

Wolf, R. S., Strugnell, C. P., & Godkin, M. A. (1982). *Preliminary findings from three model projects on elderly abuse*. Worcester, MA: University of Massachusetts Center on Aging.

Yin, P. (1985). *Victimization and the aged*. Springfield, IL: Chades C Thomas.

Zarit, S., Todd, P., & Zarit, J. (1986). Subjective burden of husbands and wives as caregivers: A longitudinal study. *The Gerontologist, 26*, 260–266.

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Network Information Bulletin

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The Elderly Crime Victim

"The riders in a race do not stop short when they reach the goal. There is a little finishing canter before coming to a standstill. There is time to hear the kind voice of friends and to say to one's self: 'The work is done.'"

Oliver Wendell Holmes II made this statement on the day of his 90th birthday. And, for many people, it represents a dignified vision of old age. Unfortunately, that vision is far from a reality for millions of our elderly. They instead live out their days in anxiety, worried about impinging poverty, failing health, and terrorizing crime. While most studies show that the elderly are less likely to become victims of crime, their vulnerability to devastating consequences should they become victimized leaves many older people more concerned about crime than any other aspect of their lives.

This Information Bulletin will address three aspects of crime against the elderly. First, it will examine some of the reasons why the elderly are more vulnerable to the impact of crime. Secondly, it will review the nature of both the fear of crime and the kinds of crime that are committed against older people. And, thirdly, it will propose an array of policies and services that should be established to assist elderly victims of crime.

The Vulnerabilities of the Elderly to the Impact of Criminal Victimization

In the work that the National Organization for Victim Assistance has done over the last decade, it has focused on three primary injuries which victims may suffer: physical injury, financial injury, and psychological injury. In addition, victims are often subject to a second type of injury – that inflicted by the criminal justice system or the society around them. Each of these injuries may be exacerbated in cases involving elderly victims, for each type of injury closely parallels unique vulnerabilities among the aged.

Physical injury

Increased physical frailty and decreased physical ability are both part of the aging pattern.

The prevalence of chronic illness increases greatly with age. The elderly are four and a half times as likely to suffer activity limitation as persons under the age of sixty-four. Some studies suggest that a person age sixty-five and over averages 6.5 physician visits each year. Eighty-five percent of the elderly over sixty-five living outside institutions report at least one chronic disease and 50% report some limitation of normal activity related to chronic health conditions.

The health problems are underscored by the fact that hospitalization rates for people over the age of sixty-five are two and a half times that for the population under sixty-five. And the elderly spend over three times as much on hospital costs and almost three times as much on physician services per capita annually as do other age groups.

Other health problems include vision, hearing, and dental concerns. Poor vision is increasingly common as a person grows older. Good vision without correction is demonstrated in only 7.6 percent of men and 2.7 percent of women after the age of sixty-five. And 15 percent have serious visual impairment even with correction. Significant hearing losses affect over one third of all individuals over the age of sixty-five. Over 25 percent of people between the age of forty-five and sixty-four have lost all of their teeth. Ninety percent have gum disease.

All such increased infirmities add to an older person's vulnerability to physical injury. In many cases, this vulnerability produces results that are rarely recognized by traditional analysis of crime's impact.

Older people often have a fear of falling because of their self-awareness of the fragility of their bones. If an older woman is injured during a purse snatch, it may result in permanent disability, even though the injury would have been for a younger person relatively minor – a broken hip, arm, or wrist.

Ann Carter,* age seventy-three, was knocked down in a purse snatch. Her hip was broken in the fall. She was in a hospital for a month and then sent to a nursing home. She never recovered sufficiently to return home.

Health problems may be exacerbated by the consequences of non-physical crimes as well. Such problems can be devastating. When Gerald Anderson's house was burglarized while he was sleeping, the burglar not only took the television but threw Gerald's glasses on the floor and broke them. Gerald, age sixty-nine, was left unable to read his daily paper or watch television. He became depressed and tried to take his own life.

Financial injury

Financial vulnerability is another by-product of aging. Older people are often condemned to live on fixed incomes, which do not reflect rising

**All names of victims mentioned in this bulletin have been changed to preserve confidentiality.*

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costs of living. When inflation is taken into account, some estimate that as many as 36 percent of the elderly do not have enough income to survive by themselves.

The poverty of old age is even more staggering for elderly women. Women are more than twice as likely to live in poverty when they are old than men. The 1980 census indicated that half of all older women had incomes of less than $5,000 and the poverty rate for elderly women was 19 percent.

The public seems to accept the myth that Social Security is a financial safety net for the elderly. However, while it provides some support, Social Security only exacerbates the discrepancies between male and female income levels. Widows receive benefits that are calculated on the standard of living when their spouse died as opposed to the standard of living when benefits begin. Divorced women married less than ten years receive no benefits relating to their ex-spouses. Inconsistent labor force participation minimizes the amount of Social Security benefits that women may receive. For many women, incomes are limited because they did not work in the regular work force. In those cases, even their Social Security entitlements are a fraction of what their spouses may have received or what a working woman would have received. The economic sufficiency of older people is made more difficult by the health costs which they face. Even though Medicare and Medicaid are operative, they pay less and less of actual medical costs.

The larceny of $50 may mean that an individual goes without food, or medication, or even forfeits his/her apartment.

The financial impact of crime can be devastating to those on a limited income budget. The larceny of $50 may mean that an individual goes without food, or medication, or even forfeits his/her apartment because of lack of rent.

When Eunice Ladd's purse was snatched, she lost $100. Her heat and lights were cut off in the following month, because she had not been able to pay her utility bills. She remained without heat and lived in candlelight for three additional months because of the extra charges she would have to pay to reconnect the utilities.

Burglaries and vandalism cause untold damage and require repair and replacement. Some would argue that such impact can be ameliorated by private insurance; in fact, even if people could afford it, such coverage is rarely adequate. Not only do most insurance policies have heavy deductibles which require the insured to pay the first $100-$500 worth of damage, but the actual reimbursement rate is likely to be for less than the replacement value of the damage or loss.

Mary and John Travis's home and furniture was so destroyed by the vandalism that accompanied their burglary that they could not afford to clean or repair it. They were forced to move from the house in which they had lived for thirty-five years. They ended up living a lonely life in an apartment far from their friends and their neighbors.

Psychological injury

Physical age-related changes have much to do with the elderly's vulnerability to psychological injury. Some gerontologists have suggested that the single most critical age-related difference in physiology is a diminishing ability to respond to stress (physical and emotional) and to return to the pre-stress level. This can be termed a decrease in homeostatic capacity. It is prominent in neuroendocrine interaction as well as in the nervous and endocrine systems separately.

"With stress—whether physical, as in exercise, or emotional, as in excitement or fear—the magnitude of displacement is greater, and the rate of recovery is slower with increasing age." (Weg in Woodruff and Birren, 1975)

In addition to this physiological change, the older person may endure a state of "chronic losses" in this phase of his/her life. S/He may have suffered loss of job, loss of status, loss of family members and friends through death, loss of mobility, loss of income, loss of health, and sometimes loss of home. Such chronic and continual losses can result in chronic stress and increase the crisis risk when an unusual trauma occurs.

Crime is an extraordinary trauma. Most victims suffer some discomfort and stress as a result of even the smallest kind of crime. Some have suggested that 20 percent of all victims seem to exhibit severe stress reactions. And, 5 percent of all victims are likely to go into emotional crisis. Elderly victims are among those types of victims who are viewed as high crisis risks following crime.

The stages of the crime-stress reaction are often more severe in the elderly. The immediate reaction to crime is shock and disbelief. This reaction may be increased in the elderly, because they may have been brought up in a society or neighborhood that had little crime and this is the first time they have ever dealt with such an attack. In the aftermath of shock, normal reactions include fear, anger, depression, frustration, etc. These reactions reflect the sense of helplessness felt by crime victims, the loss of self-control imposed by the attack.

The elderly victim may have already been trying to deal with a growing sense of dependence and helplessness. Often elderly people are afraid of becoming incompetent and unable to function. The outside intervention of the criminal event can leave them feeling totally worthless. These feelings can increase sorrow, irritation, lack of self-esteem, or depression which may have previously existed in response to retirement or other losses.

Mildred Stone was so upset after being robbed that she began to calm herself through the use of alcohol. She became afraid of leaving her home. She found she couldn't concentrate on day-to-day events in her life and began to stay in bed for most of the day. She didn't go out, didn't see friends, didn't talk to anyone. One day a friend came to see her and found her so ill from malnutrition and alcohol abuse that she had to be hospitalized at once.

Second injuries

The injuries inflicted upon victims as a result of the criminal attack are often severe. However, many victims report that the aftermath of crime may be more traumatizing because of the injustices and indiginities inflicted by the criminal justice system and the society around them.

Most victims suffer a second shock, when they realize that society is not sympathetic to victims. Victims are often blamed for their plight. Com-

mon questions to victims are "Why didn't you lock the door?", "Why were you on the street after dark?", "Why did you park your car in a bad area of town?" – all such questions imply that the victim could have avoided the victimization and that therefore s/he is subject to blame.

Victims are further surprised to find themselves stigmatized. No one wants to hear about crime's horrors. Most of us are too frightened ourselves to want to know that we, too, could become victims. We tend to avoid pain, mutilation and the reality of death. And victims find that they lose many of their friends and even the closeness of their own families.

Although recent studies show a positive shift in attitudes towards the aging, there continues to be some stigma attached to the process of growing older.

Such issues, again, can be more upsetting for older people. Although recent studies show a positive shift in attitudes toward the aging, there continues to be some stigma attached to the process of growing older. The stigma results in part from fear – fear of illness, fear of senility, fear of death. Many people remain vital and active in their old age, but society often thinks of them as young and associates aging with the old people they see among the homeless, the mentally ill, or the infirm.

Older people may internalize these fears themselves. They worry about their own mental competence. A burglary or robbery may make them question their own capacities and their ability to live on their own. They often are afraid to admit to families and friends that they have become victims, for fear that those very loved ones will urge them to move out of their home, move into a nursing home, or will try to use the situation to prove that they are incompetent.

If the criminal is arrested, victims may suffer even more than simple blame and stigma. They may be subject to countless interviews, investigations, hearings, and other court procedures. In all of this process, their own needs may be completely ignored. Most jurisdictions do not provide transportation to and from the police station or the court house for witnesses or victims. It is still rare to brief victims or witnesses on court procedures or let them know what will be expected in testimony or cross-examination. The courthouse itself may be completely uncomfortable, with no suitable seating; little accommodation may be made for meals in the waiting area, and victims may have to actually sit and wait for hearings with the offender and his family.

The court proceedings and the lack of services may be particularly onerous to the elderly. Often they do not have transportation. Their health may depend upon regularity in eating and a routine schedule of medication, which may be difficult to follow in many courtroom settings. They may need a place to rest and relax, which is unavailable.

Elderly victims may feel unsure of themselves when they testify. Most victims are frightened when called upon to testify at a hearing or in a courtroom. The experience of being cross-examined, hearing your credibility questioned, and being asked questions you don't expect is upsetting for almost anyone. The courtroom is itself a fear-inspiring place. The situation is often more awesome for the aging. Older people experience changes in memory and perception, and sometimes those changes cause them to forget the details of recent events or to remember them in different ways from people who are younger. Police, prosecutors, judges and juries often discount the elderly witnesses because of such differences. Indeed, some witnesses report being treated as incompetent.

Older people experience changes in memory and perception, and sometimes those changes cause them to forget the details or recent events or to remember them in different ways.

Having looked at the ways in which the elderly may be more vulnerable than other age groups to crime victimization and its aftermath, it is important to examine the nature of the crime problem for the elderly.

Crime and the Elderly

Definition

A definition of the crime problem with regards to the elderly may seem simple to construct. However, the issue has been surrounded by controversy for the past ten years. While studies continue to show that crime rates for the elderly are considerably lower than those in the general population, the issue has remained a popular public concern. In part, that concern has been based on the vulnerability of the elderly to injury, as discussed above. But, in part, that concern has been predicated on the hypothesis that the quality of life for the elderly is seriously decreased as a result of their fear of crime.

Thus, the crime problem for the elderly has been redefined to include their subjective concern with crime. In spite of that redefinition, there have been relatively few studies that have analyzed the issue in order to assess whether that concern was related to age or whether it was related to other factors. When such an analysis has been employed, there seems to be some indication that fear of crime may relate to neighborhood risk of victimization or living alone rather than to age, and that age serves merely to index those other factors.

Such studies are not dispositive of the issue but do raise further questions. If the elderly could move to alternative areas, would they still be as afraid of crime? If more elderly lived in communal settings or with other people, would that reduce their fear? And, in either case, is the reduction in fear related to risk? If so, it would seem that, in a circular fashion, the studies suggest that the elderly are more afraid of crime victimization because they are more at risk. However, they are not more at risk because of their chronological age but, rather, because their age has placed them in more vulnerable situations.

Fear

Whatever the reason for the fear of crime among the elderly, the concern does seem quite evident both in survey research and in reports from senior centers and the elderly themselves. The fear of crime can be understood better if it is examined more closely.

One study indicated that fear could be divided into three types: fear of

persons, fear of places, and a general concern about crime. The elderly suffered a high degree of fear in each type, but their reaction to different types of fear varied. Those with a high degree of fear of strangers did not normally respond with significant behavior modification. Indeed, it seemed that the loneliness of the elderly seemed to overcome that fear when strangers were introduced to older individuals.

The elderly who were afraid of specific places usually altered their behavior to avoid going to such locations. Places which were commonly identified as being dangerous included shopping centers, the "downtown" mall, and specific neighborhood streets or stores. Interestingly enough, there is often enough agreement among the elderly about such "dangerous" places in any given community that a map can be made of the areas targeted for avoidance.

The extent of fear of crime among the elderly seems to be great. That fear can be paralyzing and dangerous.

Finally, general concern about crime was high, but the behavior alterations varied radically with individual perceptions of crime. Some elderly became totally housebound – being afraid to venture forth from their home. Others purchased firearms or security alarms. Still others did nothing – because they didn't think it was worth it.

The extent of fear of crime among the elderly seems to be great. That fear can be paralyzing and dangerous. In addition to the fear generated by concern for themselves or their property, there are additional fears with which the elderly deal when friends or family members become victims. The elderly are often highly traumatized by the effects of what some have called secondary victimization – the crisis of experiencing crime vicariously as a result of the victimization of someone you love. The psychological injuries suffered by the elderly as a result of such close relationships can be more severe than injuries suffered by direct crime victims of other ages. Grandparents whose grandchild is murdered report an experiencing of two losses – the loss of the grandchild and the loss of their own child, who may change radically in his or her grief.

Direct victimization

The scope of direct criminal victimization of the elderly is a difficult issue to address, because patterns vary by type of crime and by location of the victim. As mentioned above, direct victimization of the elderly tends to be less than other age groups, if victimization is uncategorized. Several reasons have been advanced for this.

The elderly are not as socially mobile as other age groups. Retirement, lack of transportation, and physical decline all contribute to a reduction in social mobility among adults over the age of sixty-five. The lack of mobility contributes in two ways to reduced victimization. The elderly are less visible to potential assailants. And the elderly stay at home more and therefore reduce opportunities for burglaries. Even active older persons often restrict their activities to daytime hours and avoid going out at night.

Despite this general trend, in some crime categories the elderly are more victimized than other groups. Purse snatch, pocket picking, and fraud are good illustrations of traditional crimes that seem to afflict particularly older people.

Information from the Bureau of Justice Statistics shows that the elderly are most often victims of larceny with contact and robbery. The combination of these two types of crime account for 83 percent of the victimizations dealing with personal crimes. In most cases there are no recorded serious injuries. However, one fourth of all elderly robbery and assault victims sustain physical injury, and some 21 percent of those who do require hospitalization.

Other studies suggest that in non-personal crimes, 20 percent of all elderly victims have been victims of fraud and harrassment. Harrassment is a particularly insidious crime, because it hides itself in the grey area between criminal and civil violence. Both of these crimes are prominent among the elderly, not necessarily because of their age, but perhaps because they are often alone and they are easy targets.

Fraudulent schemes that have been particularly successful among the elderly include health care quackery, home improvement scams, mail order frauds, income creation schemes, and social involvement activities. Each type of fraud is dependent upon a particular vulnerability of the elderly. For instance, alleged arthritis or cancer cures are commonly offered and purchased in desperate attempts to ward off death or immobility. Mail order health insurance, burial insurance, and supplemental life insurance programs are rampant and virtually useless. The isolation and loneliness of some older people is the foundation of long term contracts for dance lessons or even permanent relationships with another person.

The elderly seem to become burglary victims at about the same rate as the rest of the population. However, some anecdotal evidence suggests that their reaction to burglary may be more intense. The invasion of their home symbolizes their vulnerability in a dramatic way. If the burglary occurred while they were sleeping, it may remind them of their inability to hear well. It often instills terror, based on the knowledge that the burglar could have killed them. Some victim service workers who specialize in assisting elderly victims report that elderly burglary victims are more likely to want to relocate than victims of burglary from other age-groups.

Sometimes property that would not be considered valuable by others assumes a special significance to older people. For instance, a gold wedding band may represent the treasured memory of a deceased spouse. A television set, a radio, a record player may be a life-line of communication to an isolated person.

While traditional crime may not be as serious for older people as has been thought in the past, abuse of the elderly by intimates may be more prevalent than previously considered. To understand such violence, it is useful to define the type of abuse which is suffered and review its scope.

Many people think of abuse by intimates only in terms of physical violence. Indeed, that type of abuse often seems the most frightening. However, physical neglect is far more common with elderly victims than extraordinary violence. Such neglect may take the form of isolating the victim, tranquilizing them, leaving them in unsanitary living conditions, providing them with inadequate ventilation or heat, and so forth.

While physical abuse against the elderly may cause death directly or indirectly, abuse may take other fearful

forms as well. The elderly may suffer financial, psychological, and surrogate abuse.

Financial abuse occurs when caretakers gain control over the bank account or the property of an elderly person. Caretakers may convert funds or transfer property without the knowledge of the elderly owner. Because of the laws in many jurisdictions, the signing of a simple power of attorney may give a caretaker or relative entire authority to dispose of property. In some cases such disposition may leave the elderly victim penniless. Hannah Goldberg lived by herself in a small house that she had occupied for thirty-five years with her husband prior to his death. She felt secure with a small bank account and a monthly pension check. When her son-in-law visited her a year after her husband had died, he persuaded her to let him help her with her day-to-day finances. Within six months, her home had been sold and she had been moved into a single room occupancy hotel in a deteriorating part of the city. Her son-in-law deposited her monthly pension check and gave her an allowance of $40 a week for food and incidentals. She died in her room nine months after the move.

Psychological abuse often takes a number of devious forms. Common types of abuse include refusing access to a bathroom, the telephone, or the radio/television; making an older person beg for food or medication; varying the temperature to the extreme; scaring an older person with stories of death and disease; and so on. Mary Cameron's daughter placed her in a dark closet if Mary became irritable or disagreed with her daughter. She often was left there all day long without food or water. When Mary threatened to tell someone, her daughter told Mary she would have her committed if she became any more troublesome.

Surrogate abuse takes place primarily in the form of destruction of property or pets. Common objects for violence are articles of sentimental value to the elderly person or items that seem vital to an enjoyable life. Sara Thompson's daughter-in-law killed Sara's cat. She told Sara that she had to get rid of the cat because it ate too much. She added that Sara ate too much, too. Sara lived in fear that she would be murdered as well.

These four forms of abuse have been translated by one observer into the following definition: "the willful infliction of physical pain, injury or debilitating mental anguish, unreasonable confinement or deprivation by a caretaker of services which are necessary to maintain mental and physical health."

It is difficult to estimate the scope of elderly abuse. As with other forms of domestic violence (spouse abuse and child abuse), victims are often scared to report such incidents and may not even know that the abuse is a crime. Further, when abuse involves family members, the victim is often embarrassed and humiliated to be violated by a "loved one."

In spite of this difficulty, in states where elderly abuse reporting laws have been enacted, evidence would suggest that as many as 10 percent of all elderly are abused by caretakers. While the abuse may take any of the above identified forms, it appears that physical neglect is the most common type of abuse. However, in almost all cases there seems to be more than one form of abuse at a time.

The abusing caretaker may be either a relative, service provider in a nursing home or in a home care program, or simply a companion. In the vast majority of cases the abuser is a relative, and in most cases the abuser lives with the elderly victim.

Most victims are female and over the age of seventy-five. Many are already physically or mentally impaired. While victims are financially dependent upon their abuser, it is not clear whether or not they were financially dependent prior to the abuse or whether the financial dependency resulted from the abuse.

The elderly may fall into patterns of learned helplessness.

One of the primary immediate causes of abuse seems to be high stress. However, while stress is a precipitating factor, violence would not occur unless it was condoned historically and socially. Aggressive violence is only one of many ways to relieve stress. However, it is often promoted in the socialization process in the United States. Violence within the family has traditionally been ignored, whether it is committed against children, spouses, or the elderly.

There are, however, a number of stress factors that occur within a caretaking setting with an elderly person which exacerbate feelings of frustration and aggression. The impact of taking care of an elderly relative may cause severe financial strains on a family. If an elderly relative lives with a younger family, it may cause rifts in the family structure. Grandmother or grandfather may feel that s/he should serve as "head of the household" and disrupt already established relationships. Chronic illness, a common problem with the aged, is another high stress factor in intimate relationships. It often imposes additional burdens on the caretaker and may invoke the sense of death. This unpleasantness can be an extreme source of frustration and anger.

The elderly may fall into patterns of learned helplessness, which often accompany a battering relationship. Their new dependency, as one who is being taken care of, may cause internal resentment, but that resentment is often converted to resignation. The affectation of helplessness may in turn spark anger and disgust on the part of the caretaker.

All such problems are increased by the stigmas associated with aging. Helplessness is associated with incompetence and senility. Illness is associated with worthlessness. The elderly are associated with death and dying. These associations in turn often cause individuals inside and outside the family structure to ostracize the older person.

Family abuse is one of the more difficult crime problems because intervention strategies must be developed that acknowledge the intimate relationships and their effect on the victim, recognize the criminality of the offense, and sanction the offender.

The most immediate problem is that the family relationship often prevents reporting and inhibits investigation. Victims often feel guilty about raising a son or daughter who acts in an abusive manner. Their feelings are often a complex mix of affection, frustration, and pain. In addition, the caretaker may intimidate the victim and threaten more abuse, if there is a report.

Further, since the victim is often dependent upon the offender for economic support, s/he may have no place to go and no other source of support. This becomes a particular problem when financial abuse has already

taken place and the older person is destitute.

Finally, older victims are often threatened by caretakers with potential commitment or legally imposed guardianships or conservatorships. Older people express terror at the potential of being declared incompetent and being confined to a mental institution.

These kinds of barriers have impeded the development of public policy as well as the establishment of programs to provide services and promote prevention of elderly abuse.

Rights and Services for Elderly Crime Victims

There are a number of policy and program options than can be developed to help provide better assistance for elderly crime victims. They range from sensitizing mental health, criminal justice, and other professionals to the unique needs of the aged to enacting legislation to set standards of service and establish remedies for mistreatment.

Prevention

Attention should be given to techniques for preventing crime and abuse. This is perhaps a priority area for development, since demographic and social trends indicate that there will be more and more older adults vulnerable to crime.

Since traditional crime against the elderly primarily involves robbery, larceny with contact, fraud, and burglary; prevention education becomes a more reasonable option than if the crimes were more violent. Robbery and larceny with contact may be minimized through enhancing the environmental security where elderly people tend to shop and socialize. In addition, law enforcement could make weekly or monthly reports identifying particularly dangerous areas of a city, such that the elderly can avoid those places. Escort services have been used in some communities to ensure that the elderly travel accompanied in their activities and hence are better protected.

Fraud victimization can be reduced primarily through better education of the elderly. Knowledge of the various kinds of schemes and their hazards is a potent weapon against victimization. Better general services for the elderly in any community can reduce the motivation for an older person to become involved in an unknown scheme. The more opportunity for maintaining a decent standard of living, an active social life, and good health means less desire for "get rich quick plans," spurious companion clubs, or unreliable medical cures.

Burglary prevention is one of the most active areas of crime prevention. Almost every city has a program in its law enforcement agency that addresses such issues as operation identification, target hardening your home, block watch and the like. Ensuring that the elderly get special attention in these programs can help them retain more involvement in the community as a whole as well as reduce victimization. Some cities provide free deadbolt locks and other hardware to the elderly and low income population groups.

Prevention education should be tailored to the elderly population groups in ways that respond to the changes in their physical senses. Written materials should be printed in bold and easily read type. Colors should be bright and attractive. Speakers who talk about prevention should speak clearly and distinctly. They should also be trained in modulating their voice to tone and pitch which is most easily heard by older individuals.

Prevention of abuse in family settings relates strongly to the stress factors which help precipitate violence. There are a number possible resources which could help lessen such stresses. Programs which promote the use of home-related services, such as home aides, day care, friendly visitation programs, and counseling of family members are illustrations of what can be done. In addition, services which give family members "time-off" from the care-taking role or increase the mobility of the care-takers so that they feel less confined and burdened are also necessary.

Programs which enhance the resources of the older person also contribute to prevention of abuse. If older people are given control of their lives and their dependency reduced, they may develop acceptable alternatives to an abusing relationship. Similarly, such control tends to reduce passivity and to increase the opportunity for the elderly to experience the positive aspects of aging.

Finally, prevention issues must be addressed with regard to public knowledge as a whole. Violence as a release from stress should not be socially approved. Public education about the causes and effects of violence should be disseminated. Alternative stress releases should be taught – particularly at an early age. And, for those who perpetrate abuse, it is conceivable that offender education programs can help them re-learn new strategies for coping.

Public Policy and Legislation

Legislation should be passed that provides for basic rights and remedies for crime victims as a whole and establishes special standards of service for special victim groups, such as the elderly. In the past few years, some thirty-one states have passed bills of rights for victims, and some nine states have enacted special statutes to help meet the special needs of children. It is certainly equally legitimate to focus on special needs of the elderly.

Victim compensation programs should be modified to include such items as reparations for lifeline and health related property replacements. This would involve providing reimbursement for or replacement of stolen television sets, radios, eyeglasses, hearing aids, dentures, and so on when they are taken from an elderly victim.

Another area of legislative concern should be the treatment of the elderly victim in the criminal justice process. Speedy trial laws should be enacted to deal with cases involving the elderly, even if they are not considered for other age groups. The fact that a crime against an elderly person can eventually be dismissed because of the death or incapacity of the older person can hardly be considered just.

Videotaping of testimony or the use of depositions in preliminary hearings should be employed where possible to minimize the number of times an elderly person is forced to travel to or appear in court. When an elderly person is physically incapacitated, efforts should be made to either move the hearing to his or her place of residence or use videotape as a method of presenting a case.

Special attention should be paid to the visual or hearing impairments of the elderly, and appropriate translator

services provided where necessary to pursue a line of questioning or discussion of a case. Elderly victims should be put on call, so that they do not have to wait in a courthouse for hours, and special transportation services should be provided for their use. If the elderly victim cannot attend court hearings or the trial, s/he should be allowed to have a representative of his/her choice in attendance.

In the area of elder abuse, legislation is also critical. It is important that this type of violence be identified as a crime and dealt with, both in terms of its social consequences and its criminal impact.

Some twenty-three states have already enacted either mandatory or voluntary reporting laws. However, in many cases they need to be strengthened. Key features of existing legislation include: reporting and investigation by social workers or health officials when there is reason to suspect the commission of acts of elderly abuse; immunity and confidentiality for reporters; mandatory access for investigation; voluntary and involuntary provisions for protective services with safeguards for individual rights against inappropriate intervention; and the definition of penalties for the commission of acts of elderly abuse.

A number of critical issues have been raised about such laws. Many of them center around the definitions of elderly abuse; the standards for reporting and investigation, as they affect the rights of privacy and confidentiality; the right of access into private homes; and due process aspects of involuntary provision of protective services.

In addition, it is clear that mandatory reporting is clearly inadequate, unless there is some provision for support services for the abused elder and the caregiver. Since most of the abusers are the caregivers, it is crucial that they receive help. While it is important that society make it clear that abuse will not be condoned, some patterns of elder abuse are reflective of mutually untenable relationships. Hence, remedies should focus on assistance as well as reprimand.

Existing legislation does not go far enough. In order to provide some adequate remedies for elderly people suffering from abuse, more positive steps need to be taken. A model law might reflect such affirmative action through the following additional provisions: a method of providing relief through temporary or permanent restraining orders for the abuser to refrain from abuse or vacate the family home; a method through which an older person can reclaim property converted by family members through fraud or misuse; a designation and funding of institutions and facilities to provide alternative shelter, care or services to abused elderly under critical circumstances; establishment of a uniform system for statewide reporting of abusers; establishment of both criminal and civil penalties for abuse; and development of mandatory treatment for abusers.

Assistance Programs for Elderly Victims

In addition to legislative action, social services need to be provided on a local level for elderly crime victims and victims of elder abuse. Programs should include an emergency medical response, with an emphasis on the need for medical professionals who have specialized in geriatrics.

Crisis intervention services should be designed with specialists available to deal with the social and emotional problems that may affect the elderly victim. Advocates need to have a working knowledge of benefit systems such as Social Security, Medicare, Medicaid, Veterans benefits, and others in order to handle financial crises and on-going economic concerns. Victim service counselors should learn about the sensorial reductions that many elderly face and be able to offer constructive assistance as elderly victims develop options to deal with the aftermath of crime. Advocates and counselors both should be familiar with the range of low technology devices that can increase the performance capability of older adults.

Intervention programs for victims of elder abuse should include a multidisciplinary approach. Access to services such as adult day care, homemaker care, meals on wheels, transportation, and counseling can help lessen family stress. It is essential that adequate nutritional programs be included in services for victims of elderly abuse, since lack of good nutrition not only causes physical illness but can affect mental alertness and irritability.

The federal government should take a greater leadership role in dealing with elderly abuse. A number of federal programs actually increase the stress that occurs in situations where the elderly are cared for within the home. The Supplemental Security Income program deducts one/third of the total benefits due the elderly person if s/he is living in the household of another person and is receiving in-kind maintenance from them. Medicare does not include insurance for long-term home health care or adult day care. Medicaid currently provides assistance only for elderly who enter a nursing home instead of allowing payments for home and community based services. Additionally, tax incentives should be developed that encourage home health care for the elderly. These should be at least as beneficial as the effect of child dependent deductions, and child care support.

This Information Bulletin has sought to review some basic issues of criminal victimization of the elderly – both by strangers and by intimates. The picture is not a happy one. It is one of violence, fear, abuse, and neglect. But there is a picture of hope if prevention programs, legislation, and victim services can be developed to help minimize the effects of crime on the elderly.

References

Ambrogi, Donna, and London, Cecilia. "Elder Abuse Laws: Their Implications for Care-Givers." *Generations* (Fall 1985).

Binstock, Robert H., Shanas, Ethel, eds. *Handbook of Aging and the Social Sciences*. New York: Van Nostrand Reinhold Co., 1976.

Block, Marilyn R., and Sinnott, Jr., eds. *The Battered Elder Syndrome: An Exploratory Study*. The Center on Aging, University of Maryland, College Park, Maryland, 1979.

Clark, Phillip G., "The Social Allocation of Health Care Resources: Ethical Dilemmas in Age-Group Competition." *The Gerontologist* 25 (April 1985).

Costa, Joseph J. *Abuse of the Elderly*, Lexington: D.C. Heath and Co., 1976.

Douglass, Richard L.; Hickey, T.; and Noel, C. *A Study of Maltreatment of the Elderly and Other Vulnerable Adults*. Institute of Gerontology, The University of Michigan. Ann Arbor, Michigan, 1980.

Goldsmith, J., and Goldsmith,

Sharon, eds. *Crime and the Elderly: Challenge and Response*. Lexington: D.C. Heath and Co., 1976.

Hochstedler, Ellen. *Crime Against the Elderly in 26 Cities*. U.S. Department of Justice. Bureau of Justice Statistics. 1981.

Janson, Philip, and Ryder, Louise K. "Crime and the Elderly: The Relationship Between Risk and Fear." *The Gerontologist* 23 (April 1983).

Jaycox, Victoria, H. "The Elderly's Fear of Crime: Rational or Irrational." *Victimology*, 1978.

Jaycox, Victoria, H.; Center, Lawrence J.; and Ansellow, E.F. *Effective Responses to the Crime Problem of Older Americans: A Handbook*. Washington, D.C.: National Council of Senior Citizens, 1982.

King, Nancy. "Exploitation and Abuse of Older Family Members: An Overview of the Problem." *Response* 6, no. 2. (March/April 1983).

Lawton, M.P., and Yaffe, S. "Victimization and Fear of Crime in Elderly Public Housing Tenants." *Journal of Gerontology*, 1980.

Lindquist, J.H., and Duke, J.M. "The Elderly Victim at Risk: Explaining the Fear-Victimization Paradox." *Criminology*, 1982.

Minkler, Meredith, and Stone, Robyn. "The Feminization of Poverty and Older Women." *The Gerontologist*. (August, 1985).

(Rifai) Young, Marlene A., ed. *Justice and Older Americans*. Lexington: D.C. Heath & Co., 1977.

U.S. House of Representatives. Select Committee on Aging. *Poverty Among America's Aged*. Washington, D.C.: GPO, 1978.

Woodruff, Diana S. and Birren, James E. eds. *Aging*. New York: Van Nostrand Reinhold Co., 1975.

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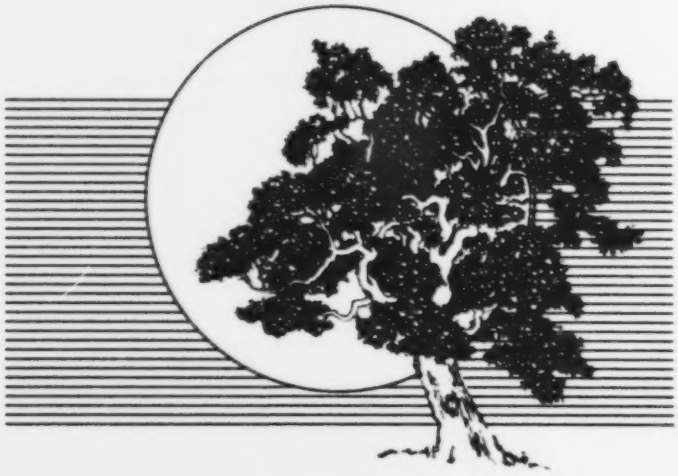
GERIATRIC TRAINING CURRICULUM FOR PUBLIC HEALTH PROFESSIONALS

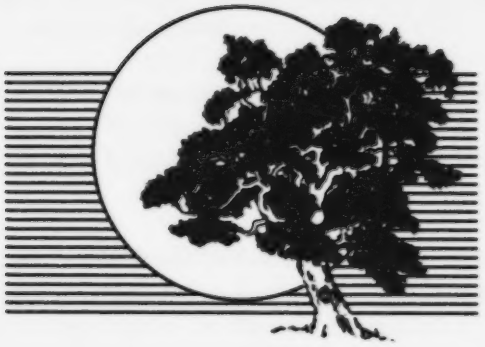
FINANCING OF HEALTH CARE FOR OLDER ADULTS

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES • Public Health Service • Health Resources and Services Administration



GERIATRIC TRAINING CURRICULUM FOR PUBLIC HEALTH PROFESSIONALS

FINANCING OF HEALTH CARE FOR OLDER ADULTS



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Mr. Ronald Merrill, Government Project Officer for the Bureau of Health Professions, recognized the need for public health professionals to acquire the relevant resources, skills, and attitudes that would enable them to serve as repositories of geriatric information for their agencies and local communities. In addition to envisioning the original scope, process, and content of a modular geriatric training institute, Mr. Merrill patiently worked with the project staff and Advisory Panel through the long process of conducting a needs assessment, selecting topics, designing a draft curriculum, pilot testing, revising the draft for review by content experts, and producing a final document. His sound advice and high level of commitment have been greatly appreciated.

The Advisory Panel, chaired by Dr. Phil Weiler, assisted in the design of the needs assessment, as well as the selection of topics for inclusion in the curriculum. Several of the members of the Advisory Panel served as content experts for the review of draft materials. Their willingness to share their insights, knowledge, and time guided the evolution of this project and contributed a keen sense of direction to the effort.

In addition, we are appreciative of the many professionals and staff in public health departments, as well as aging-network organization and agencies, whose observations during the needs assessment phase of this project helped us refine an operational strategy for curriculum development.

Special thanks are due the South Texas Geriatric Education Center (STGEC) at the University of Texas Health Science Center at San Antonio (UTHSCSA) under whose auspices the pilot test was conducted. We are indebted to Dr. Michele J. Saunders (STGEC Project Director and Director of Education), Ms. Ruth A. Freiburger (STGEC Education Specialist), and Ms. Carolyn E. Marshall (STGEC Community Education Coordinator) for their enthusiastic support, sage advise, and administrative skills in organizing the pilot test, coordinating the myriad details, and identifying both faculty to serve as trainers during the pilot test and potential participants. Dr. Saunders, Ms. Freiburger, and Ms. Marshall also reviewed and critiqued the five training modules, and served as facilitators for several sessions of the Geriatric Training Institute (GTI) for Public Health Professionals. We also wish to thank Dr. Robert Oseasohn, Dr. Mary Ann Matteson, Dr. David Warner, and Dr. Myron Shank for facilitating sessions of the pilot test. The guidance provided by members of the GTI faculty, and the evaluations submitted by participants, resulted in revisions that have strengthened the final product.

The magnitude of a project of this nature requires the energies and talents of many individuals oriented toward a common goal. The Technical Resources, Inc. (TRI) project staff contributed the combined expertise of diverse disciplines to generate a comprehensive, practical training vehicle. As co-authors of several modules, Ms. Rosalind P. Brannigan and Mr. Peter J. Pizzolongo provided high-quality substantive content, creative approaches, and unflagging senses of humor integral to both the process and the product.

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Joel A. Todd
Project Director

Shelli B. Rossman
Project Manager

PREFACE

The Geriatric Training Curriculum for Public Health Professionals was developed by Technical Resources, Inc. (TRI) for the Bureau of Health Professions, Health Resources and Services Administration, Public Health Service, U.S. Department of Health and Human Services. The curriculum has been designed for mid- and senior-level practicing public health professionals, primarily employed in state and local Departments of Public Health. The training materials have been designed to permit these professionals, as well as representatives of aging-related networks, to broaden their understanding of aging and the needs of the older adult so that they may serve as geriatric/gerontologic resources in their communities.

It is the intent of the Bureau and TRI that training sessions conducted with these materials be facilitated by persons who are experienced trainers, as well as content experts in the areas for which they provide training. The curriculum is fully self-contained. It comprises all the written materials and instructions necessary to prepare and conduct this training. In developing these materials, we have anticipated that facilitators will want to present updated information to remain current in the field; we have included suggestions for enhancing the topical relevance of the training pieces, together with suggestions for where to obtain state-of-the-art data.

CURRICULUM MATERIALS

The Geriatric Training Curriculum is comprised of five modules:

- Aging: Demography, Biology, and Epidemiology.
- Psychosocial Issues Affecting Older Adults and Their Caregivers.
- Financing the Health Care of Older Adults.
- Continuum of Care Services for Older Adults.
- Health Promotion for Older Adults.

Each module can be presented independent of the others. However, if the curriculum is utilized in its entirety, it is recommended that the aforementioned order be preserved to permit trainees to incorporate a foundation in concepts basic to an understanding of aging, as well to clarify

their own values, prior to examining the complexities of financing, service delivery, and health promotion/disease prevention issues.

All of the modules have been organized utilizing a seven-section format, as detailed below:

- **Introduction** -- This section presents a brief narrative describing the purpose of the module, together with information for the instructor, including a general description of the organization of the remainder of the module and some generic recommendations for training.

- **Overview** -- This section presents a schematic outline of each training topic, including time required for the didactic session and any interactive exercises, training objectives, listings of relevant overheads and handouts, and indication of special preparation requirements, if any. This section concludes with a bibliography that constitutes the literature referenced within the module.

- **Training Content** -- Presented in two-column format, this section contains the substantive content that serves as a training script, together with strategic guidance for conducting training activities, such as interactive exercises.

- **Overheads** -- This section contains hard copies from which transparencies or slides can be produced. In addition, this section may be reproduced for distribution to trainees as an aid in note taking.

- **Handouts** -- This section contains master copies of the handouts, which have been developed to support and enrich the training experience. Typically, these materials either (i) present current data or (ii) form the basis for interactive training activities.

- **Resources** -- This section presents pertinent information on relevant Federal agencies, private organizations, and media resources from which up-to-date information can be obtained. Facilitators should contact appropriate resources to update the training content for each session, as necessary. The section may also be reproduced in hard copy for distribution to training participants.

- **Readings** -- Each module contains relevant readings that should be reviewed by the facilitator in advance of training. Such materials may be duplicated for distribution to training participants, prior to, or at the conclusion of, the training session.

As a result of a needs assessment that was performed prior to undertaking the design of this material, the curriculum developers were cognizant of public health professionals' interests in the geriatric arena, as well as their concerns that training be pragmatic and practicable, given existing and projected constraints on personnel, time, budget lines, and other crucial resource considerations. The use of these materials will permit the skilled trainer to meet the needs of public health department personnel for aging-related information through pre- or in-service training in any or all

of the topics subsumed by this curriculum. TRI has employed a modular approach to facilitate training sessions of short duration that may be (i) conducted as a series of brief sessions, such as lunchtime seminars, over a period of time, or (ii) merged together to form half- or full-day intensive training workshops. Further, since these materials represent a fully-contained training package, this curriculum can be presented at minimal cost to the sponsoring organization, but at great benefit to public health professionals, who have expressed interest in the selected issues.

DEVELOPMENT OF THE CURRICULUM

The TRI project staff began the research for the curriculum during the Fall of 1987. Early project activities included:

A. Project Start-Up

- Discussions with Ronald B. Merrill, M.H.A., Government Project Officer, to refine the strategy that would serve as the blueprint for action and day-to-day progress. A six-pronged strategy for analysis of geriatric education resources was implemented as detailed below.

B. Phase One: Strategy

- Educational Efforts of Professional Associations and Organizations. Discussions were held with associations that address issues concerning the elderly to ascertain the extent and nature of programs under their domain that could be applied to satisfy the training needs of public health professionals. The following organizations were contacted:

  - American Association of Retired Persons (AARP)
  - American Medical Association (AMA)
  - American Geriatric Society (AGS)
  - Association for Gerontology in Higher Education (AGHE)
  - American Bar Association (ABA)
  - National Council on Aging (NCOA)
  - Gerontological Society of America (GSA)
  - National Senior Citizens Law Center
  - American Public Health Association (APHA)
  - Association of Schools of Public Health
  - Association of State and Territorial Health Officials (ASTHO)
  - National Association of County Health Officials (NACHO)
  - U.S. Conference of Local Health Officers (USCLO).

- Geriatric/Gerontologic Curricula in Schools of Public Health. An assessment of geriatric/gerontologic curricula in schools of public health was undertaken. In 1985, the Association of the Schools of Public Health (ASPH) compiled a comprehensive list of geriatric and gerontologic courses offered at all twenty-three school of public health in the U.S. TRI used this report, *Gerontology Programs and Curricula in U.S. Schools of Public*

Health (Judith H. Magee, June 1985) to analyze training opportunities and content areas offered to students of public health. TRI randomly contacted approximately half of these institutions if they had indicated plans for curriculum expansion during the 1985 ASPH Survey.

Content analysis of the various curricula found that many of the schools of public health have developed discrete courses devoted to health care of the aged, although some schools merely incorporate gerontologic/geriatric material into existing courses.

- Geriatric Education Center Resources. Analysis of the training offered by the Bureau of Health Professions-funded Geriatric Education Centers (GECs), nationwide, permitted TRI to identify a number of existing curriculum modules and/or bibiographic resource listings that were obtained and assessed for relevance to the target training audience. In all, twenty-five curriculum modules were subjected to content analysis, focusing on the target audience for the information, scope of the course offering, topics subsumed, and training techniques employed.

- Review of Literature. Geriatric/gerontologic and education/training literature pertinent to public health professionals was reviewed. The TRI staff performed an exhaustive review of the following journals from 1985 to the present:

  - *American Journal of Public Health*
  - *Geriatrics*
  - *Gerontology and Geriatrics Education*
  - *Health Education*
  - *Health Education Quarterly*
  - *The Gerontologist.*

  In addition, numerous monographs and relevant articles from other health-related journals were also reviewed. A working bibliography of materials reviewed at that time has been included at the end of this section.

- Preliminary Needs Assessment. TRI contacted public health professionals whose agencies serve elderly populations. State, regional, county, and urban health department personnel from jurisdictions in California, Virginia, New York City, and the District of Columbia provided information on their current levels of services, as well as the training needs of departmental staff.

- Staff Development Activities. TRI project staff attended several conferences and symposia, including:

  - The Gerontological Society of America Annual Meeting
  - The Ohio Valley Appalachia Region (OVAR) One-Week Summer Intensive
  - The Amerian Society on Agency Annual Conference.

- Advisory Panel. An advisory group, comprised of national experts representing the professions of public health, medicine, epidemiology, ethics and law, health education, health administration, and geriatrics/gerontology, was empaneled. The Advisory Panel members were drawn from universities, public health departments at state and local levels, Geriatric Education Centers, and relevant associations. Representatives of appropriate Federal agencies served as resource representatives, augmenting the considerable expertise

of the Advisory Panel membership. A two-day meeting was convened to focus curriculum development through selection of topics for inclusion in the training, and discussion of recommended training resources and approaches. The meeting was attended by:

Panel Members

- Phil Weiler, M.D., M.P.H., Panel Chairperson
  Department of Community Health
  School of Medicine
  University of California at Davis

- John Arradondo, M.D., M.P.H., Director
  Department of Health and Human Services
  Houston, Texas

- Robert Butler, M.D., Chairman
  Ritter Department of Geriatrics and Adult Development
  Mt. Sinai School of Medicine

- William Carter, Ph.D.
  University of Washington
  School of Public Health

- J. Richard Connelly, Ph.D.
  Director of Gerontology
  University of Utah

- Rose Dobrof, D.S.W.
  Hunter/Mt. Sinai Geriatric Education Center
  Brookdale Center on Aging of Hunter College, CUNY

- Mary Ellis, R.Ph., M.P.A.
  Commission of Health
  State of Iowa

- Daniel Friedman, Ph.D.
  Director, Health Statistics and Research
  Massachusetts Department of Public Health

- Pearl German, Ph.D.
  Department of Health Policy and Management
  Johns Hopkins University
  School of Hygiene and Public Health

- Tom Hickey, Ph.D.
  Community Health Program
  Health Gerontology
  School of Public Health
  University of Michigan

- Jane Johnston
  Director of Training
  Human Resources
  American Association of Retired Persons

- Robert Kane, M.D., Dean
  School of Public Health
  University of Minnesota

- Marshall B. Kapp, J.D., M.P.H.
  Wright State University
  School of Medicine

- Bernice Parlak, M.S.W.
  Geriatric Education Center of Pennsylvania
  Temple University Institute on Aging

Resource Representatives

- Ronald B. Merrill, M.H.A.
  Public Health Service Project Officer
  Division of Associated and Dental Health Professions

- William D. Clark, M.A.
  Social Science Research Analyst
  Division of Long-Term Care Experimentation
  Office of Research Demonstrationn (ORD)/HCFA

- Marsha Goodwin, R.N., M.S.N., M.A.
  Chief, Education and Training for Geriatrics and Extended Care
  Veterans Administration

- Evan Hadley, M.D.
  Chief, Geriatrics Branch
  National Institute on Aging

- William Koenig, M.P.A.
  Deputy Chief
  Associate Health Professions Branch
  Division of Associated and Dental Health Professions

- Thomas L. Louden, D.D.S., Director
  Division of Associated and Dental Health Professions

- Marsha Ory, Ph.D.
  Chief, Social Science Research on Aging
  National Institute of Aging

TRI Project Staff

- **Joel Ann Todd, M.A.**
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- **Shelli B. Rossman, M.A.**
  Project Manager

- **Rosalind Brannigan, M.P.H.**
  Research Associate

- **Peter J. Pizzolongo, M.S.**
  Senior Associate

C. **Phase Two: Targeted Needs Assessment**

- Following the Advisory Panel meeting, TRI designed and implemented a strategy for a needs assessment and a discussion guide.

- TRI staff conducted telephone conversations at the state and county, as well as city, level with staff of public health departments in 11 states and the District of Columbia. Contacts included health commissioners; epidemiologists; health department training specialists; physicians and nurses operating geriatric clinics; and chiefs of such administrative offices as long-term care, health planning and development, health promotion, community and rural health, and chronic diseases. In addition, site visits were made to several public health departments at both the state and local levels in Maryland to meet with cognizant personnel and actually obtain a first-hand exposure to daily routines. TRI staff also spoke with representatives of Offices on Aging at both state and local levels, by phone and in person, to determine their perspectives on the geriatric training needs of public health department personnel. Needs assessment respondents described a number of activities undertaken by public health, including assessment and treatment services provided by health centers and specialized clinics, adolescent pregnancy prevention programs, home health programs, geriatric programs, and mental health and addiction programs.

- In general, respondents who had oversight responsibilities for on-going geriatric programs/services were most able to pinpoint training needs or issues they felt required further attention. Training areas identified included information about effective health promotion programs, Medicare/Medicaid/Catastrophic care coverage, local linkages and continuum of care issues, nutrition, pharmacologic issues, and health education for fitness/exercise programs.

D. **Phase Three: Curriculum Design**

- TRI, in consultation with the Government Project Officer, developed a curriculum outline that blended the topics suggested by the Advisory Panel with those that emerged as a result of the needs assessment. Particular attention was paid to selecting issues that would not only attract professionals in public health departments, but also those in related agencies, such as Offices on Aging.

- The first draft of the Geriatric Training Curriculum was pilot tested in July 1989 in a three-day-intensive Geriatric Training Institute under the auspices of the South Texas Geriatric Education Center in San Antonio, Texas. Eighteen participants, representing the Texas Department of Public Health at state and regional levels or from in-state area agencies on aging, attended the pilot test.

- Two activities were incorporated in the pilot strategy to enhance curriculum development:

  - The modules were implemented in an actual training setting by facilitators who had not been involved in the curriculum development process. This approach was used to obtain an objective assessment of whether the packages were truly self-contained and user friendly. The facilitators, who are listed below, were given the opportunity to critique content and form of all materials.

  - Pilot test participants completed evaluations of each training session. A sample of the evaluation instrument is presented in Appendix A.

Geriatric Training Institute Faculty

-- Michele J. Saunders, D.M.D., M.S., M.P.H.
Director, South Texas Geriataric Education Center

Sessions: Demographics, Biology of Aging, Continuum of Care, Health Promotion

-- Robert Oseasohn, M.D.
Professor and Associate Dean
School of Public Health at Houston
MPH Program at San Antonio

Session: Epidemiology

-- Mary Ann Matteson, Ph.D.
Assistant Professor
School of Nursing
University of Texas Health Science Center at San Antonio

Session: Psychosocial

-- David Warner, Ph.D.
LBJ School of Public Affairs

Session: Financing

-- Ruth A. Freiburger, M.A.
Education Specialist
South Texas Geriatric Education Center

Session: Health Promotion

-- Carolyn E. Marshall, M.P.H.
Community Education Coordinator
South Texas Geriatric Education Center

Session: Health Promotion

-- Myron Shank, M.D.
Division of Diabetes
Department of Medicine

Session: Health Promotion

- Based upon the critiques of the facilitators, the evaluations of the participants, and the observations of the TRI project staff and Government Project Officer that were recorded during the pilot test, the initial draft curriculum was revised and strengthened.

- Subsequently, the modules were reviewed by Advisory Panel members, whose critiques, together with that of the Government Project Officer, during late Summer, 1989, guided the final revision of all materials.

TIPS FOR FACILITATORS

To ensure effective training sessions designed to meet the needs of participants, facilitators should address the following issues.

Sensitivity of Language

The language used to develop programs for older adults is an important part of helping individuals empower themselves to deal with the aging process. Language is a symbol of sensitivity to a group's strengths, needs, and interests. Therefore, facilitators must select words carefully when conducting training.

Project staff have chosen the words "Black" and "Hispanic" to identify members of these racial/ethnic groups (consistent with the terminology presented in National Center for Health Statistics data and with the Centers for Disease Control classifications). However, identifiers most appropriate for the region in which training is conducted (e.g., "African-American," "Latino," "Chicano") should be used during the training session. Facilitators should contact racial/ethnic group leaders from the trainees' jurisdiction(s) prior to presenting the workshops to ensure that the appropriate identifiers are used.

Similarly, the term "elderly" has a long history of referring to adults, aged 65 and older. More recently, demographic shifts have underscored the heterogeneity of this group, leading to the recognition that at least two sub-sets exist within the 65+ cohort: the "young-old" and the "old-old" (who typically are frailer individuals). Many of the young-old are wary of the designation of "elderly" since they perceive it as conferring a status of infirmity to which they do not wish to lay claim. "Elderly" is still linguistically viable, but one should be alert to an audience's comfort and responsiveness when using terms that may be value laden.

In general, it is important not to stereotype individuals when discussing aging-related issues. Urban dwellers are not necessarily more socially conscious, modern, and formally educated than rural dwellers. Individuals who fall within the same age group may not share anything else in common except chronological age. Training sessions can, and should, be strengthened by discussing stereotypes and prejudices with representatives of appropriate groups, at the local level. Information about the manifestations of such attitudes and behaviors in the trainees' jurisdiction(s) can be integrated into the training content where appropriate.

Needs Assessment

Prior to scheduling and conducting training sessions, facilitators should assess the knowledge, skill, and attitude training needs of participants. Using surveys, pre-tests, and/or interviews, the specific needs of participants can be identified. Facilitators can then schedule sessions appropriately and modify training outlines, as necessary, to match the strengths, interests, and needs of the trainees.

An advantage of the modular approach of this Geriatric Training Curriculum is that it not only contains suggestions for optional activities, but also has an inherent flexibility that permits facilitators to add to, delete from, or restructure the existing material to tailor it to the specific needs of a select group.

Class Size

This curriculum was designed to provide for interactive training. Therefore, a class size of 15 to 30 participants would be optimal.

Training Strategies

- Lecture/Discussion -- Facilitators should familiarize themselves sufficiently with the training outline scripts to avoid reading from the script during the training session. Add anecdotes pertinent to the trainees' jurisdiction(s) to strengthen these segments; the inclusion of humor in the form of cartoons or tasteful jokes is not only a good icebreaker, but also creates a positive climate for training. If time permits, encourage participants to ask questions during the lecture segments, or respond to questions at the conclusion of these segments.

- Overheads -- Facilitators should talk from the overheads and not read them verbatim. The right column in the training outline provides information relevant to each overhead. The use of a pointer during discussion of charts and graphs can greatly enhance the impact of the data.

- Brainstorming -- This training strategy allows participants to identify many responses to a question (e.g., "What do you think about the Catastrophic Care Coverage Act of 1988?"). Brainstorming is an appropriate strategy when a question has many "right answers" or possibly no "right answers" (an open-ended question). It is not appropriate for questions that have only one or a few "right answers." Facilitators should ask participants to respond to brainstorming questions without commenting negatively on the relative merits of each response; although information that is factually incorrect should be accurately restated so as to clarify misinformation and prevent its repetition.

- Values Clarification -- This strategy is used in the Psychosocial Issues module. Its purpose is to help trainees recognize how their own attitudes can influence decision making and planning, as well as treatment and care. This type of strategy works best when used in training situations of low threat, in which an individual can shift his or her attitudes without feeling defensive or threatened. Facilitators should approach this activity as an "off-the-record" discussion in as "judgment-free" an atmosphere as possible. The training outline for the Psychosocial Issues module includes objective information for facilitators to share with trainees at the conclusion of the values clarification activity.

- Group Discussions -- Most of the modules include group discussion activities. These activities are designed to tailor the lecture information to the needs in the trainees' jurisdiction(s). Each discussion activity is based on a series of written questions to which participants respond individually and/or within their groups. Some of the activities lead to a "debriefing" report from each group. The training outline provides questions for facilitating large group discussions at the conclusion of the small group activities.

The Geriatric Training Curriculum for Public Health Professionals can be a useful tool for increasing knowledge of geriatric/gerontologic issues and for developing the competencies to deal with older adults. The Bureau of Health Professions and TRI hope that training providers can incorporate this curriculum with other quality programs.

BIBLIOGRAPHY

1. Abramowitz, M. "Age and Economics--Should Expensive Procedures Be Limited on the Basis of Age?" *Washington Post*, January 26, 1988.

2. Ahmed, S.M., Kraft, I.A., Porter, D.M. "Attitudes of Different Professional Groups Toward Geriatric Patients," *Gerontology and Geriatrics Education*, 6(4):77-86, Summer 1986.

3. The Alzheimers's Disease Center and National Institute on Aging. *Q&A: Alzheimer's Disease*, NIH Pub. No. 85-1646, May 1985.

4. American Association of Retired Persons. *A Profile of Older Americans: 1985*, Washington, DC, 1985.

5. Applebaum, R.A. and Wilson, N.L. "Training Needs for Providing Case Management for the Long Term Care Client: Lessons from the National Channeling Demonstration," *The Gerontologist*, 28(2):172-176, 1988.

6. Arie, T.H.D. "Education in the Care of the Elderly," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):492-500, July-August 1985.

7. Austin, D.R. "Attitudes Toward Old Age: A Hierarchical Study," *The Gerontologist*, 25(4):431-434, 1985.

8. Author Unknown. "Long Term Care Program Promised," *The Nation's Health*, March 1988.

9. Author Unknown. "Medicare's Fiscal Dilemma," *The Urban Institute Policy and Research Report*, 18(1), Winter 1988.

10. Author Unknown. "State Health Reports," *The Nation's Health*, p. 14, January 1988.

11. Bass, S.A. "Symposium on Tomorrow's Able Elderly: Implications for Policy and Practice - Introduction," *The Gerontologist*, 27(4):403-404, 1987.

12. Bender, C. and Hart, J.P. "A Model for Health Promotion for the Rural Elderly," *The Gerontologist*, 27(2):139-142, 1987.

13. Berk, M.L. and Wilensky, G.R. "Health Care of the Poor Elderly: Supplementing Medicare," *The Gerontologist*, 25(3):311-314, 1985.

14. Berkman, L.F. "The Assessment of Social Networks and Social Support in the Elderly," *Journal of the American Geriatrics Society*, 31(12):743-749, December 1983.

15. Berman, S., Delancey, N., Gallagher, D., Atkins, P., and Graeber, M.P. "Respite Care: A Partnership Between a Veterans Administration Nursing Home and Families to Care for Frail Elders at Home," *The Gerontologist*, 27(5):581-584, 1987.

16. Berry, G.L, Smyer, M.A., and Lago, D. "State-Level Pharmaceutical Assistance Programs for the Elderly: A National Survey," *American Journal of Public Health*, 78(2), February 1988.

17. Besdine, R. "The Educational Utility of Comprehensive Functional Assessment in the Elderly," *Journal of the American Geriatrics Society*, 31(11):651-656, November 1983.

18. Besdine, R.W. *Observations on Geriatric Medicine*, DHEW Pub. No. (NIH) 79-162, National Institute on Aging, 1979.

19. Binstock, R.H. "Title III of the Older Americans Act: An Analysis and Proposal for the 1987 Reauthorization," *The Gerontologist*, 27(3):259-265, 1987.

20. Blazer, D. "Home Health Care: House Calls Revisited," *American Journal of Public Health*, 78(3):238-239, March 1988.

21. Blumenfield, S. "Gerontology Journal Club: A Continuing Education Modality for Experienced Social Workers in an Acute Hospital Setting," *The Gerontologist*, 25(1):11-14, 1985.

22. Branch, L.G., Wetle, T.L, Scherr, P.A., Cook, N.R., et al. "A Prospective Study of Incident Comprehensive Medical Home Care Use Among the Elderly," *American Journal of Public Health*, 78(3):255, March 1988.

23. Brody, S.J. "Strategic Planning: The Catastrophic Approach," *The Gerontologist*, 27(2):131-138, 1987.

24. Buchanan, J. and Santos, J.F. "A Report from an Interdisciplinary Conference on Mental Health and Aging," *Gerontology and Geriatrics Education*, 7(1):1-3, Fall 1986.

25. Burroughs, P., Young, J.E., Silverman, M., Ricci, E., Shore, B.K., Lago, D. "The Development and Evaluation of Training Standards for the Aging Network and Academia: II Summary of Project Products and the Process of Their Validation," *Gerontology and Geriatrics Education*, 7(2):47-54, Winter 1986.

26. Calkins, E. "Residency Training in Geriatric Medicine - 1984," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):534-, July-August 1985.

27. Capitman, J.A. "Community-Based Long-Term Care Models, Target Groups and Impacts on Service Use," *The Gerontologist*, 26(4):389-397, 1986.

28. Capitman, J.A., Arling, G., and Bowling, Cindi. "Public and Private Costs of Long-Term Care for Nursing Home Pre-Admission Screening Program Participants," *The Gerontologist*, 27(6):780-787, 1987.

29. Capitman, J.A., Haskins, B., and Bernstein, J. "Case Management Approaches in Coordinated Community-Oriented Long-Term Care Demonstrations," *The Gerontologist*, 26(4):398-404, 1986.

30. Castro, J. "Critical Condition," *Time*, p. 42, February 1, 1988.

31. Champlin, L. "Long-Term Care: Protecting the Elderly From Going Broke," *Geriatrics*, 43(4):96-102, 1988.

32. Chandler, J.T., Rachal, J.R., and Kazelskis, R. "Attitudes of Long-Term Care Nursing Personnel Toward the Elderly," *The Gerontologist*, 26(5):551-555, 1986.

33. Chappell, N.L. and Blandford, A.A. "Adult Day Care and Medical and Hospital Claims," *The Gerontologist*, 27(6):773-779, 1987.

34. Chen, Y-P. "Making Assets Out of Tomorrow's Elderly," *The Gerontologist*, 24(4):410-416, 1987.

35. Cherry, D.L. and Rafkins, M.J. "Adapting Day Care to the Needs of Adults with Dementia," *The Gerontologist*, 28(1):116-120, 1988.

36. Clark, P.G. "The Social Allocation of Health Care Resources: Ethical Dilemmas in Age-Group Competition," *The Gerontologist*, 25(2):119-125, 1985.

37. Cohen, M.A., Tell, E.J., Greenberg, J.N., and Wallack, S.S. "The Financial Capacity of the Elderly to Insure for Long-Term Care," *The Gerontologist*, 27(4):494-502, 1987.

38. Committee on Leadership for Academic Geriatric Medicine. "Report of the Institute of Medicine: Academic Geriatrics for the Year 2000," *Journal of the American Geriatrics Society*, 35(8):773-791, August 1987.

39. Cook, F.L. "A Symposium on Measuring Hardship Among Older Americans During the First Four Years of the Reagan Administration - Introduction," *The Gerontologist*, 26(1):25-26, 1986.

40. Cook, F.L. and Kramek, L.M. "Measuring Economic Hardship Among Older Americans," *The Gerontologist*, 26(1):38-47, 1986.

41. Doka, K.J. and Smith-Fraser, D. "The Goals of Master-level Gerontological Students: An Institutional Study," *Gerontology and Geriatrics*, 7(1)75-83, Fall 1986.

42. Doress, P.B. and Siegal, D.L. *Ourselves. Growing Older. Women Aging with Knowledge and Power*, Simon and Schuster, New York, 1987.

44. Drinka, T. and Ray, R.O. "An Investigation of Power in an Interdisciplinary Health Care Team," *Gerontology and Geriatrics Education*, 6(3):43-53, Spring 1986.

45. Eisdorfer, C. "Educating for Caring," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):573-579, July-August 1985.

46. Elster, S.K. "Introductory Remarks," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):469-470, July-August 1985.

47. Falcone, A. "Comprehensive Functional Assessment as an Administrative Tool," *Journal of the American Geriatrics Society*, 31(11):642-650, November 1983.

48. Famiglietti, R.A. "Meeting an Emergent Need in Curriculum Development: Aging and Developmental Disabilities," *Gerontology and Geriatrics Education*, 6(1):25-35, Fall 1985.

49. Fanelli, M.T. and Abernethy, M.M. "A Nutritional Questionnaire for Older Adults," *The Gerontologist*, 26(2):192-197, 1986.

50. Ford, A.B. "Looking After the Old Folks," *American Journal of Public Health*, 77(12):1499-1510, December 1987.

51. Freedman, M.L. "Medical Education in Geriatrics: Ethical and Social Concerns," *Symposium the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):501-505, July-August 1985.

52. Frongillo, E.A., Jr., Williamson, D.F., Roe, D., and Scholes, J. "Continuance of Elderly on Home-Delivered Meals Programs," *American Journal of Public Health*, 77(9), September 1987.

53. Geriatrics Panel and Discussion. "Practical Considerations in Managing Alzheimer's Disease: I," *Geriatrics*, 42(9):78-98, September 1987.

54. Geriatrics Panel and Discussion. "Practical Considerations in Managing Alzheimer's Disease: II," *Geriatrics*, 42(10):55-65, October 1987.

55. Gibbs, N.R. "Grays on the Go," *Time*, p. 66, February 22, 1988.

56. Granick, S. "Psychologic Assessment Technology for Geriatric Practice," *Journal of the American Geriatrics Society*, 31(12):728-742, December 1983.

57. Greene, M.G., Hoffman, S., Charon, R., and Adelman, R. "Psychosocial Concerns in the Medical Encounter: A Comparison of the Interactions of Doctors with Their Old and Young Patients," *The Gerontologist*, 27(2):164-168, 1987.

58. Grover, S., M.D., et al. "Impact of Medicare on Early Cancer Detection in the Elderly," *American Journal of Public Health*, 78(1):58-60, January 1988.

59. Gruca, J.A. "Three Perspectives on Curriculum Development in Gerontology," *Gerontology and Geriatrics Education*, 6(3):65-72, Spring 1986.

60. Hagestad, G.O. "Able Elderly in the Family Context: Changes, Chances, and Challenges," *The Gerontologist*, 27(4):417-422, 1987.

61. Harel, Z., Noelker, L., and Blake, B.F. "Comprehensive Services for the Aged: Theoretical and Empirical Perspectives," *The Gerontologist*, 25(6):644-649, 1985.

62. Havlik, R.J., Liu, B.M., Kovar, M.G., et al. "Health Statistics on Older Persons," National Center on Health Statistics, p. 1-77, 1986.

63. Hay, J. and Ernst, R. "The Economic Costs of Alzheimer's Disease," *American Journal of Public Health*, 77(9)1169-1175, September 1987.

64. Henig, R. "Can -or Should- We Conquer Aging," *Washington Post Health*, p. 10, November 24, 1987.

65. Henninger, J.L., Henninger, W.B., Morse, C.K., and Zweigenhaft, R.L. "Physicians' Awareness of Services for the Elderly," *Gerontology and Geriatrics Education*, 7(2):21-28, Winter 1986.

66. Hesse, K.A., Levkoff, S.E., Campion, E.W. "House Officers' Knowledge of Geriatric Health Policy: Are the Gatekeepers Learning the Rules?," *The Gerontologist*, 28(2):233-236, 1988.

67. Hickey, T. *Health and Aging*, Wadsworth, Inc., Belmont, CA, 1980.

68. Higbie, L. "To Understand the Aging Process: The Baltimore Longitudinal Study of the National Institute on Aging," NIH Pub. No. 80-134, August 1980.

69. Hing, E. *Use of Nursing Homes by the Elderly: Preliminary Data from the 1985 National Nursing Home Survey*, National Center for Health Statistics, No. 135. DHHS Pub. No. (PHS) 87-1200, Public Health Service, Hyattsville, MD.

70. Hofland, B.F., Kirby, William, T., Hennessy, M., Lawler, T., and Santos, J.F. "A National Media Awards Competition in Gerontology and Geriatrics," *Gerontology and Geriatrics Education*, 7(1):5-13, Fall 1986.

71. Hofland, B.F., Smyer, M.A., Wetle, T., Walter, Adrian R. "Linking Research and Practice: The Fellowship Program in Applied Gerontology," *The Gerontologist*, 27(1):39-45, 1987.

72. Hudson, R.B. "Tomorrow's Able Elders: Implications for the State," *The Gerontologist*, 24(4):405-409, 1987.

73. Johnson, J.E., III. "Geriatrics and Medical Education - Initiatives of the Association of American Medical Colleges," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):484-491, July-August 1985.

74. Kahn, R.L. "Productive Behavior: Assessment, Determinants, and Effects," *Journal of the American Geriatrics Society*, 31(12):750-757, December 1983.

75. Kane, R., Solomon, D., Beck, J., Keeler, E., and Kane, R. "The Future Need for Geriatric Manpower in the United States," *The New England Journal of Medicine*, 302(24):1327-1332, June 1980.

76. Kane, R.A., and Kane, R.L. *Assessing the Elderly: A Practical Guide to Measurement*, Lexington, Mass: Lexington Books, 1981.

77. Kapp, M. "Interprofessional Relationships in Geriatrics: Ethical and Legal Considerations," *The Gerontologist*, 27(5):547-552, 1987.

78. Karuza, J., Jr., Calkins, E., Duffey, J., and Feather, J. "Network in Aging: A Challenge, Model, and Evaluation," *The Gerontologist*, 28(2):147-155, 1988.

79. Katz, S. "Assessing Self-Maintenance: Activities of Daily Living, Mobility, and Instrumental Activities of Daily Living," *Journal of the American Geriatrics Society*, 31(12):721-727, December 1983.

80. Kim, P.K.H., Johnson, D.P., Su, L. "Education for Gerontological Social Workers: Problems and Prospects," *Gerontology and Geriatrics Education*, 6(4):69-76, Summer 1986.

81. Kosberg, J.I. "Preventing Elder Abuse: Identification of High Risk Factors Prior to Placement Decisions," *The Gerontologist*, 28(1):43-50, 1988.

82. Kroger, M.H., Papsidero, J.A., Isaacs, F., Jr., Gesten, F.C. "The Content of Textbooks in Geriatric Medicine: Some Directions for Improvement," *Gerontology and Geriatrics Education*, 7(1):37-53, Fall 1986.

83. Krout, J.A. "Rural-Urban Differences in Senior Center Activities and Services," *The Gerontologist*, 27(1):92-97, 1987.

84. Lago, D., Silverman, M., Eisele, F., Ricci, E., Britton, J. "The Development and Evaluation of Training Standards for the Aging Network and Academia: III. Conclusions and Implications," *Gerontology and Geriatrics*, 7(2):55-65, Winter 1986.

85. Lebowitz, B.D., Light, E., and Bailey, F. "Mental Health Center Services for the Elderly: The Impact of Coordination With Area Agencies on Aging," *The Gerontologist*, 27(6):699-702, 1987.

86. Leutz, W., Abrahams, R., Greenlick, M., Kane, R., Prottas, J. "Targeting Expanded Care to the Aged: Early SHMO Experience," *The Gerontologist*, 28(1):4-17, 1988.

87. Linsk, N.L, Keigher, S.M., and Osterbusch, S. "States' Policies Regarding Paid Family Care Giving," *The Gerontologist*, 28(2):204-212, 1988.

88. Lubomudrov, S. "Congressional Perceptions of the Elderly: The Use of Stereotypes in the Legislative Process," *The Gerontologist*, 27(1):77-81, 1987.

89. Ludman, E.K. and Newman, J.M. "Frail Elderly: Assessment of Nutrition Needs," *The Gerontologist*, 26(2):198-202, 1986.

90. Magee, J.H. *Gerontology Programs and Curricula in U.S. Schools of Public Health*, ASPH for HRSA, June 1985.

91. Michielutte, R., Diseker, R.A. "Health Care Providers' Perceptions of the Elderly and Level of Interest in Geriatrics as a Specialty," *Gerontology and Geriatrics Education*, 5(2):65-85, Winter 1984/85.

92. Miko, P.S. "College Students and Institutionalized Elderly: Attitudinal Effects of Interactive Contacts," *Gerontology and Geriatrics Education*, 6(3):37-42, Spring 1986.

93. Moon, M. "Impact of the Reagan Years on the Distribution of Income of the Elderly," *The Gerontologist*, 26(1):32-37, 1986.

94. Morris, R. "Concluding Remarks: Consequences of the Demographic Revolution," *The Gerontologist*, 27(4):423-424, 1987.

95. Mullins, L.C., McNicholas, N. "Loneliness Among the Elderly: Issues and Considerations for Professionals in Aging," *Gerontology and Geriatrics Education*, 7(1):55-65, Fall 1986.

96. National Advisory Council on Aging. *Our Future Selves. A Research Plan Toward Understanding Aging: Report of the Panel on Behavioral and Social Sciences Research*, NIH Pub. No. 80-1444, January 1980.

97. National Advisory Council on Aging. *Our Future Selves. A Research Plan Toward Understanding Aging: Report of the Panel on Research on Human Services and Delivery Systems*, NIH Pub. No. 80-1443, January 1980.

98. National Center for Health Statistics. "Aging in the Eighties, Age 65 Years and Over - Use of Community Services," *Advancedata*, 124:1-7, September 1986.

99. National Center for Health Statistics. "Use of Nursing Homes by the Elderly: Preliminary Data from the 1985 National Nursing Home Survey," *Advancedata*, 135:1-11, May 1987.

100. National Institute on Aging, NIH Pub. No. 83-1129, July 1983.

101. National Institute on Aging. *Age Page: Stroke: Prevention and Treatment*, DHHS, 1986.

102. National Institute on Aging. *Age Page: When You Need a Nursing Home*, DHHS, 1986.

103. National Institute on Aging. *Aging and Minorities*, GPO 885-273, 1981.

104. National Institute on Aging. *Changes: Research on Aging and the Aged*, NIH Pub. No. 81-85, October 1980.

105. National Institute on Aging. *Osteoporosis & Aging*, GPO 885-297, 1987.

106. National Institute on Aging. *Personnel for Health Needs of the Elderly Through the Year 2020*, September 1987.

107. National Institute on Aging. *Perspectives on Geriatric Medicine*, NIH Pub. No. 81-1924, October 1980.

108. National Institute on Aging. *Progress Report on Alzheimer Disease: Volume III*, NIH Pub. No. 86-2873, December 1986.

109. National Institute on Aging. *Special Report on Aging 1983*, NIH Pub. No. 83-2489, August 1983.

110. National Institute on Aging and Pfizer Pharmaceuticals. *Help Yourself to Good Health.*

111. National Institute on Aging Task Force. "Senility Reconsidered--Treatment Possibilities for Mental Impairment in the Elderly," *JAMA*, 244(3):259-263, 1980.

112. Netting, F.E, Wilson, C.C. "Current Legislation Concerning Life Care and Continuing Care Contracts," *The Gerontologist*, 27(5):645-651, 1987.

113. Nusberg, C. "Survey on International Course Content Related to Aging in the Curricula of American Higher Education," *Gerontology and Geriatrics Education*, 6(3):73-77, Spring 1986.

114. Oktay, J.S., Volland, P.J. "Foster Home Care for the Frail Elderly as an Alternative to Nursing Home Care: An Experimental Evaluation," *American Journal of Public Health*, 77(12):1505-1510, 1987.

115. Petchers, M.K., Milligan, S.E., "Access to Health Care in a Black Urban Elderly Population," *The Gerontologist*, 28(2):213-217, 1988.

116. Peterson, D.A. "Extent of Gerontology Instruction in American Institutions of Higher Education," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 1, Fall 1986.

117. Peterson, D.A. "Gerontology Courses," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 4, Spring 1987.

118. Peterson, D.A. "Gerontology Credentials," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 3, Spring 1987.

119. Peterson, D.A. "Organizational Structures of Gerontology Instructional Programs," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 2, Winter 1986/87.

120. Peterson, D.A. "Graduates' Perceptions of Gerontology Master's Degree Curricula," *Gerontology and Geriatrics Education*, 5(3):19-27, Spring 1985.

121. Pillemer, K, Finkelhor, D. "The Prevalence of Elder Abuse: A Random Sample Survey," *The Gerontologist*, 28(1):51-57, 1988.

122. Rick, S. "Hill Conferees Drafting 'Catastrophic' Health Deal," *Washington Post*, p. A6, March 1988.

123. Rick, S. "Shaking Up the System With Data for Consumers, Medicare Chief Hopes Initiatives Set Pattern," *Washington Post*, March 22, 1988.

124. Roden, J. "Aging and Health: Effects of the Sense of Control," *Science*, 33:1271-1275, September 1986.

125. Rossman, I. "Comprehensive Functional Assessment: A Commentary," *Journal of the American Geriatrics Society*, 31(12):763-765, December 1983.

126. Rubenstein, L. "The Chemical Effectiveness of Multidimensional Geriatric Assessments," *Journal of the American Geriatrics Society*, 31(12):758-762, December 1983.

127. Ruchlin, H.S. "Continuing Care Retirement Communities: An Analysis of Financial Viability and Health Care Coverage," *The Gerontologist*, 28(2):156-162, 1988.

128. Samuelson, R.J. "The Elderly Aren't Needy," *Newsweek*, March 21, 1988, p. 68.

129. Select Committee on Aging (House of Representatives): *America's Elderly at Risk*, July 1985.

130. Sharp, S.J.; Britton, J.H., Lazo, D., Ricci, E., Silverman, M. Shore, B.K., Young, J.E. "The Development and Evaluation of Training Standards for the Aging Network and Academia: I. Background and Rationale," *Gerontology and Geriatrics Education*, 7(2):39-45, Winter 1986.

131. Silverman, M., Shore, B.K., Jewell, I.K. "The Development and Evaluation of Training Standards for the Aging Network and Academia: IV: One Year Follow-Up Evaluation of the Implementation of the Training Standards," *Gerontology and Geriatrics Education*, 7(2):67-81, Winter 1986.

132. Sinclair, M. "Study Links Poverty, Health Care," *Washington Post*.

133. Smith, E.T., Kelly, K., Brown, C. "Aging: Can it Be Slowed?," *Business Week*, p. 58, February 1988.

134. Sommers, A.R., and Fabian, D.R. (Eds). *The Geriatric Imperative: An Introduction to Gerontology and Clinical Geriatrics*, Appleton-Century-Crafts, New York, N.Y., 1981.

135. Stone, Robyn, *Aging in the Eighties. Age 65 Years and Over - Use of Community Services: Preliminary Data from the Supplement on Aging to the National Health Interview Survey: United States. January - June 1985*, National Center for Health Services, Number 124, DHHS Pub. No. (PHS) 86-1250. Public Health Service, Hyattsville, MD, September 1986.

136. Storey, J.R. "Policy Changes Affecting Older Americans During the First Reagan Administration," *The Gerontologist*, 26(1):27-31, 1986.

137. Task Force on Alzhemier's Disease. *Alzheimer's Disease: A Scientific Guide for Health Practitoners*, NIH No. 84-2251, May 1984.

138. Taylor, H., Kagay, M. Leichenko, S. *Problems Facing Elderly Americans Living Along: A National Survey*, Louis Harris and Associates, Inc., 1986.

139. Tell, E.J., Cohen, M.A.; Larson, M.J., and Batten, H.J. "Assessing the Elderly's Preferences for Lifecare Retirement Options," *The Gerontologist*, 27(4):503-509, 1987.

140. Torres-Gil, F. and Pynoos, J. "Long-Term Care Policy and Interest Group Struggles," *The Gerontologist*, 26(5):488-495, 1986.

141. Touifexis, A. "Older - But Coming on Strong," *Time*, p. 76, February 22, 1988.

142. Turpic, I.D., Patterson, C., Chalklen, L.W., Bayne, R., Roy, J., Neufeld, C. "The McMaster Model for Geriatric Undergraduate Experience," *Gerontology and Geriatrics Education*, 6(4):59-67, Summer 1986.

143. U.S. Senate Special Committee on Aging. *Aging America. Trends and Projections*, 1987-1988 Edition.

144. U.S. Senate Special Committee on Aging. *The Health Status and Health Care Needs of Older Americans (An Information Paper)*, November 1986.

145. U.S. Senate Special Committee on Aging. *How Older Americans Live: An Analysis of Census Data*, October 1985.

146. U.S. Senate Special Committee on Aging. *Nursing Home Care: The Unfinished Agenda*, May 1986.

147. Weg, R.B. "AGHE - Coming of Age," *Gerontology and Geriatrics Education*, 5(1):17-31, Fall 1984.

148. Weiler, P.G. "The Public Health Impact of Alzheimer's Disease," *American Journal of Public Health*, 77(9).

149. Weiner, J.M., Ehrenworth, D.A., Spence, D.A. "Private Long-Term Care Insurance: Cost, Coverage, and Restrictions," *The Gerontologist*, 27(4):487-493, 1987.

150. Wilcop, Frances, M. "Issues in the Development of Training for Mental Health Service to the Elderly," *Gerontology and Geriatrics Education*, 6(2):49-63, Winter 1985.

151. Williams, T.F. "Comprehensive Functional Assessment: An Overview," *Journal of the American Geriatrics Society*, 31(11):637-641, November 1983.

152. Williams, T.F. "The Geriatric Medical Education Imperative," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):471-477, July-August 1985.

153. Williams, M.E. "A Critical Evaluation of the Assessment Technology for Urinary Continence in Older Persons," *Journal of the American Geriatrics Society*, 31(11):657-664, November 1983.

154. Yeatts, D.E., Capitman, J.A., Steinhardt, B.J. "Evaluation of Connecticut's Medicaid Community Case Waiver Program," *The Gerontologist*, 27(5):652-659, 1987.

155. Young, C.L., Goughler, D.H., Larson, P.J. "Organizational Volunteers for the Rural Frail Elderly: Outreach, Casefinding, and Service Delivery," *The Gerontologist*, 26(4):342-394, 1986.

I. Introduction

Introduction to Module: Financing of Health Care for Older Adults

The primary purpose of this module is to familiarize public health professionals and others concerned with providing health care services to older adults with the range of public and private financing mechanisms currently available or anticipated in the near term.

The module presents a brief review of health care expenditures and trends that have major fiscal implications. Medicare, Catastrophic Care, and Medicaid Program coverage are described, as are the general trends in private insurance (Medigap and LTC).

The module also explores the need for long-term care coverage, based upon a financial model of health risk, as well as describes current policy and possible future initiatives designed to meet the growing need for protection against financial devastation.

Notes to the Instructor

The remainder of this module is organized into six sections. Section II presents the Overview of the training, as well as a listing of the resources referenced within the training module.

Section III contains the core content for the training module. The materials have been organized in five sub-sections to facilitate a range of training formats, such as lunch-time sessions through full-day workshops. The Training Content is presented in a two-column format. The left-hand column presents miniaturized versions of the overheads designed to accompany training lectures/discussions. The overheads are symbolized by boxes formed of unbroken lines. Directions for training activities are also placed in the left-hand column; these are denoted by dotted lines. Activities may require the use of flipcharts and markers; please be sure you have arranged for these materials. The right-hand column contains the substantive material that serves as a script for training. Where handouts accompany the training, these have been noted by a symbol of three overlapping pages.

It should be noted that Medicaid differs with respect to eligibility, coverage, etc., from one state to the next. Sub-section 4, The Medicaid Program, describes generic aspects of the Medicaid Program. It is recommended that instructors establish the parameters for their state's program and incorporate that material into the module.

Section IV presents the full-scale version of Overheads. These may be used as overheads or may be duplicated for use as handouts. When using these materials as overheads, remember that you will need to have access to an overhead projector and screen. Trainers may find the use of slides more convenient than overheads. The material in Section IV can be formatted as slides. The visual image of such slides may be enhanced by using a blue background with white print.

Section V presents the Handouts that accompany the training content. Both overheads and handouts should be assembled and reviewed prior to use in a training session. It is advisable to prepare sufficient copies of handouts for the anticipated number of trainees, as well as a few extra for unforeseen circumstances.

Section VI presents relevant Resources, including bibliographies, that may be useful to the trainer and/or to trainees. You may wish to make duplicate copies of these resource listings for distribution during or immediately following training sessions.

Section VII presents Readings that serve as background to the training issues or that provide additional detail on selected issues. These readings may be recommended to trainees in advance of actual training sessions, or upon completion of the module.

II. Overview

Overview of Training: Financing of Health Care for Older Adults

1. **Health Care Expenditures and Trends**

Time: Lecture/Discussion (20 minutes)

Objective: To review health care expenditures and trends that have major funding implications.

Overheads:

1. The Major Trends
2. Health Expenditures
3. Federal Expenditures
4. Rising Costs
5. The Greying of America
6. Prevalence of Selected Impairments
7. Number of Persons Needing Long-Term Care, 1980-2040
8. Out-of-Pocket Health Expenses as a Percentage of Personal Income
9. Health Expenditures, by Type for Younger and Older Urban Households: 1984
10. Nursing Home Expenditures

Handouts:

1. National Health Expenditures in 1987, by Type of Expenditure and Source of Funds
2. Sources of Funds for Personal Health Care in 1987
3. Out-of-Pocket Costs

2. **The Medicare Program**

Time: Lecture (90 minutes), including:
- Catastrophic Care Discussion (15 minutes)

Objective: To describe Medicare reimbursement for care.

Overheads:
1. Entitlement
2. Medicare: Part A
3. Medicare: Part B
4. Some Services Not Covered
5. Intermediaries and Carriers
6. PROs
7. Providers
8. Suppliers
9. PPS
10. Medicare Cartoon
11. Charges
12. The Advantages of the Private Health Plan Option From the Beneficiary's Perspective
13. Summary of Part A Benefits
14. Summary of Part B Benefits

Handouts:
1. Table 1: Per Capita Personal Health Care Expenditures for People 65 Years of Age or Over, By Source and Type of Service: 1984

   Chart 2: Personal Health Care Expenditures for the Elderly by Source of Payment: 1984

   Chart 3: Where the Medicare Dollar for the Elderly Goes: 1984

   Table 2: Per Capita Personal Health Care Expenditures for People 65 Years of Age or Over, By Source of Funds, Age, and Type of Services: 1987

2. Medicare Contact Sheet
3. Medicare Coverage
4. Assignment Method
5. Beneficiary Requirements for Private Health Plan Option
6. Catastrophic Care

Special Preparation: Obtain the most recent edition of the *Medicare Handbook*.

3. **Private Insurance**

Time: Lecture (15 minutes)

Objective: To describe private insurance designed to protect the elderly against the high costs of health care.

Overheads:
1. Medigap Insurance
2. Supplementary Insurance Coverage by Elderly Medicare Enrollees: 1984
3. LTC Insurance
4. LTC Facilities
5. Skilled Care
6. Intermediate Care
7. Custodial Care

Handouts:
1. Who Would Pay for Nursing Home?
2. What's in a Good Policy?

4. **The Medicaid Program**

Time: Lecture (30 minutes) including:
- Group Discussior (15 minutes)

Objective: To describe the Medicaid Program.

Overheads:
1. Where the Medicaid Dollar for the Elderly Goes: 1984
2. Categorically Needy
3. Medically Needy
4. Required Service Offering
5. Optional Services

Handouts:
1. Percent Distribution of Personal Health Care Expenditures By Source of Funds for People 65+, By Type of Service, 1984

Special Preparation: Determine Medicaid eligibility and coverage services in trainees' state(s).

5. **Financing Long-Term Care**

Time: Lecture (60 minutes)

Objective: To describe the parameters defining the need for long-term care coverage, as well as current policy and possible future initiatives designed to address the growing need.

Overheads:
1. 5 Primary Reasons LTC is a Major Policy Issue
2. Biomedical Model
3. Financial Model
4. Biomedical Model -- Antecedent Risk Factors for Institutionalization
5. Prevalence Rate for Nursing Home Use, by Age
6. SSBG
7. SSBG FY 1986 Planned Services for the Elderly
8. OAA
9. Title III

Handouts:
1. Percent of Elderly Impoverished, by Number of Weeks
2. Federal LTC Legislation 1988

References

Abramowitz M. Age and Economics -- Should Expensive Procedures Be Limited on the Basis of Age? *Washington Post*. January 26, 1988.

Author Unknown. Long Term Care Program Promised. *The Nation's Health*. March 1988.

Author Unknown. *Medicare's Fiscal Dilemma. The Urban Institute Policy and Research Report.* 18(1), Winter 1988.

Bailey D and Fingerhut V. The 1988 Sleeper Issue: Long-Term Health Care. *Washington Post Health*. May 31, 1988.

Berk ML and Wilensky GR. Health Care of the Poor Elderly: Supplementing Medicare. *The Gerontologist*. 25(3): 311-314, 1985.

Berry GL, Smyer MA, and Lago D. State-Level Pharmaceutical Assistance Programs for the Elderly: A National Survey. *American Journal of Public Health*. 78(2), February 1988.

Capitman JA. Community-Based Long-Term Care Models, Target Groups, and Impacts on Service Use. *The Gerontologist*. 26(4): 389-397, 1986.

Capitman JA, Arling G, and Bowling C. Public and Private Costs of Long-Term Care for Nursing Home Pre-Admission Screening Program Participants. *The Gerontologist*. 27(6): 780-787, 1987.

Capitman JA, Haskins B, and Bernstein J. Case Management Approaches in Coordinated Community - Oriented Long-Term Care Demonstrations. *The Gerontologist*. 26(4): 398-404, 1986.

Castro J. Critical Condition. *Time*. February 1, 1988.

Champlin L. Long-Term Care: Protecting the Elderly From Going Broke. *Geriatrics*. 43(4): 96-102, 1988.

Chappell NL and Blandford AA. Adult Day Care and Medical and Hospital Claims. *The Gerontologist*. 27(6): 773-799, 1987.

Clark PG. The Social Allocation of Health Care Resources: Ethical Dilemmas in Age-Groups Competition. *The Gerontologist*. 25(2): 119-125, 1985.

Cohen MA, Teil EJ, Greenberg JN, and Wallack SS. The Financial Capacity of the Elderly to Insure for Long-Term Care. *The Gerontologist*. 27(4): 494-502, 1987.

Cohn, V. The Disgrace of American Health Care. *Washington Post Health*. January 24, 1989.

References (Continued)

Congressional Forum (Joint Committee of U.S. House of Representatives and U.S. Senate). *Legislative Agenda for an Aging Society: 1988 and Beyond.* House Pub. No. 100-664; Senate Pub. No. 100-J, Washington, DC, 1988.

Consumers Union of United States, Inc. Who Can Afford a Nursing Home. *Consumer Reports.* 53(5): 300-312, May 1988.

Doress PB and Siegal DL. *Ourselves, Growing Older, Woman Aging with Knowledge and Power.* New York: Simon and Schuster, 1987.

Friedman ML. Medical Education in Geriatrics: Ethical and Social Concerns. *Symposium on the Geriatric Medical Education Imperative, Bulletin of the New York Academy of Medicine.* 61(6): 501-505, July-August 1985.

Gornick M, Greenberg JN, Eggers PW, and Dobson A. *Twenty Years of Medicare and Medicaid, Use of Benefits, and Program Expenditures. Health Care Financing Review, Annual Supplement.* 1985.

Hanft B. Federal Legislation Affecting the Elderly: Implications for Occupational Therapy in: Davis LJ and Kirkland M. *The Role of Occupational Therapy with the Elderly.* Rockville, MD: The American Occupational Therapy Association, Inc., 1988.

Harrington C, Newcomer R., and Estes CL, et al (eds.). *Long-Term Care of the Elderly: Public Policy Issues.* Beverly Hills: Sage Publications, 1985.

Harrington C and Swan JH. Institutional Long-Term Care Services in: Harrington C, Newcomer RJ, Estes CL, et al (eds.). *Long-Term Care of the Elderly: Public Policy Issues.* Beverly Hills: Sage Publications, 1985.

Harris L and Associates. *Problem Facing Elderly Americans Living Alone.* Johns Hopkins University, Baltimore, MD: Commonwealth Fund Commission on Elderly People Living Alone, 1986.

Hayward RA, Shapiro MF, Freeman HE, and Corey CR. Inequities in Health Services Among Insured Americans. *The New England Journal of Medicine.* 318(23): 1507-1512, June 9, 1988.

Katz S, Branch LG, Branson MH, Papsidero JA, Beck JC, and Greer DS. Active Life Expectancy. *The New England Journal of Medicine.* 309(2): 1218-1224, November 17, 1983

Kemper P, Brown RS, Carcagno GJ, et al. Special Issue: The Evaluation of the National Long-Term Care Demonstration. *Health Services Research.* 23(1), April 1988.

Kinoy SK, Adamson M, and Sherry S. *The ABCs of DRGs.* Washington, DC, Families U.S. A. Foundation (formerly The Villers Foundation), 1988.

Landes D. *What Legislators Need to Know About Long-Term Care Insurance.* National Conference of State Legislatures, 1987.

References (Continued)

Leutz W, Abrahams R, Greenlick M, Kane R, and Prottas J. Targeting Expanded Care to the Aged: Early SHMO Experience. *The Gerontologist*. 28(1): 4-17, 1988.

Linsk NL, Keigher SM, and Osterbusch SE. States' Policies Regarding Paid Family Caregiving. *The Gerontologist*. 28(2): 204-212, 1988.

Mann J. Aiding Families With Long-Term Illness. *Washington Post*. May 25, 1988.

Meiners MR. Enhancing the Market for Private Long-Term Care Insurance. *Business and Health*. May 1988.

Rich Spencer. Hill Conferences Drafting Catastrophic Health Deal. *Washington Post*. A6, March 17, 1988.

Ross NL. The Long-Term Care Tangle. *The Washington Post*. D5, January 31, 1989.

Rossiter LF, Nelson LM, and Adamache KW. Service Use and Costs for Medicare Beneficiaries in Risk-Based HMOs and CMPs: Some Interim Results from the National Medicare Competition Evaluation. *American Journal of Public Health*. 78(8), August 1988.

Rovner S. Uncollectible Benefits. *Washington Post Health*. September 20, 1988.

Samuelson RJ. The Elderly Aren't Needy. *Newsweek*. March 21, 1988.

Sinclair M. Study Links Poverty, Health Care. *Washington Post*.

U.S. Bureau of Labor Statistics. *Consumer Expenditure Survey: 1984 Interview Survey*. Bulletin 2267, U.S. Department of Labor, Washington, DC, August 1986.

U.S. Department of Health and Human Services. *Health Care Financing Program Statistics: Medicare and Medicaid Data Book, 1986*. HCFA Pub. No. 03247, Baltimore, MD, September 1987.

U.S. Department of Health and Human Services. *Medicare Handbook of 1989*. HCFA Pub. No. 10050, Baltimore, MD, 1989.

U.S. Department of Health and Human Services. *Medicare Has Improved: Catastrophic Protection and Other New Benefits: An Official Notice to Medicare Beneficiaries Explaining Benefits Under the Medicare Catastrophic Care Coverage Act of 1988*. Washington, DC, January 1989.

U.S. House of Representatives Select Committee on Aging. *America's Elderly at Risk*. Comm. Pub. No. 99-508, Washington, DC, July 1985.

References (Continued)

U.S. Senate Special Committee on Aging. *Developments in Aging: 1987, Vol. 3. The Long-Term Care Challenge*. Rept. 100-291, Washington, DC, February 29, 1988.

U.S. Senate Special Committee on Aging. *Aging America: Trends and Projections, 1987-1988 Edition.* DHHS, Washington, DC, 1988.

Waldo DR, Sonnefeld ST, McKusick DR, and Arnett RH. Health Expenditures by Age Group, 1977 and 1987. *Health Care Financing Review.* 10(4): 111-120, Summer 1989.

Wiener JM, Ehrenworth DA, and Spence DA. Private Long-Term Care Insurance: Cost, Coverage, and Restrictions. *The Gerontologist.* 27(4): 487-493, 1987.

Yeatts DE, Capitman JA, and Steinhardt BJ. Evaluation of Connecticut's Medicaid Community Care Waiver Program. *The Gerontologist.* 27(5): 652-659, 1987.

III. Training Content

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (20 minutes)	**HEALTH CARE EXPENDITURES AND TRENDS**
1. Review health care expenditures and trends that have major funding implications.	Federal spending on the elderly has nearly doubled since 1960. • In 1986, 26% of the Federal budget or $270 B was of direct benefit to older Americans. • About 81% of these dollars were for Social Security, Medicare, and Medicaid benefits.
Overhead: Major Trends • Rising cost of medical care. • Greying of America.	Two phenomena have major implications for the delivery of geriatric health care. The two trends are: • The rising cost of medical care. • The greying of America. The two trends are strongly related. If these trends continue as projected, they will result in an explosion of health expenditures, as well as public policy initiatives directed at cost containment. First, the cost of medical care, including acute hospital and convalescent care, has been escalating dramatically for the past 20 years.
Overhead: Health Expenditures • 1965: $41.7 B • 1984: $387.4 B • 1987: $443 B • 1990: $755.6 B projected	Health expenditures have risen: • $41.7 billion in 1965, when Medicare and Medicaid legislation was passed. • $387.4 billion in 1984. • $443 billion in 1987. • They are projected to increase to $755.6 billion in 1990.
Handout: National Health Expenditures in 1987, by Type of Expenditure and Source of Funds 	
Handout: Sources of Funds for Personal Health Care in 1987 	Looking at the two handouts, you can see the various expenditure categories, as well as the government patterns of payment for different services.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Federal Expenditures • 7% of GNP for pension programs. • 3% of GNP (1986) for health care. • Health care projections of 7% of GNP by 2030.	Predictions are that rising health care costs will overtake Federal spending for retirement income as the source of the greatest increase in Federal spending on the elderly (Senate Special Committee on Aging, 1988). • Federal expenditures for pension programs are projected to hold steady at about 7% of the GNP for the foreseeable future. • Federal expenditures for health care are projected to increase from 3% of the GNP in 1986 to more than 6% in 2030. Overall health costs (public and private expenditures) are estimated at 11.3% of the GNP for 1988.
Overhead: Rising Costs • Advanced technology and health services. • Increased use of medical services.	Rising costs are associated, in part, with: • Changes in technology and available health services. - Recent technolgical innovations have included such costly techniques as CAT scans, MRIs, organ transplants, as well as new medications with high research-and-development costs. - A case in point (Cohn, 1989): -- In 1978, there were 350,000 laser cataract operations performed. -- In 1987, there were 1.4 million at a total cost of $4 billion. • Increased use of medical services. - For example, between 1983 and 1985, there was an 18% increase in Medicare outlays for doctors' services in 5 studied states (the Dakotas, Indiana, South Carolina, and Washington) [Cohn, 1989]. - 31% of that increase was due to an increased number of services rendered (i.e., doctors did more). - 21% was due to increases in fee (doctors charged more).

- 40% was due to an increase in Medicare eligibles and claimants.

- Other factors believed to have contributed to the disproportionate growth in health care spending relative to the GNP include (Gornick, et al., 1985):

  - Rising national expections about the value of health care services.

  - Government financing of health care services -- as a result of Medicare and Medicaid coverage, individuals are removed from the direct consequences of the cost of services, and therefore may be less constrained in the use of covered services.

  - The nature of third-party reimbursement -- similar to the influence of government financing, has contributed to increased demand for services that are not directly paid by the consumer.

  - Lack of competitive forces within the health system to increase efficiency and productivity in the delivery of health care services.

Overhead: The Greying of America

Year	% of Population	Number
1960:	9%	16.7 million
1990:	12.7%	31.5 million
2030:	20%	64.6 million

The "greying of America" has also been a factor, contributing to an increased demand for medical services (House Select Committee on Aging, 1985).

- In 1960, the elderly represented 9% of the U.S. population, or 16.7 million. By 1990, the elderly will represent 12.7%, or 31.5 million.

- Projections for 2010 to 2030, when the baby boomers reach 65, suggest the elderly may constitute 20% of the population, or 64.6 million.

- The impact of these changes will likely be magnified by a shift in the age distribution of the elderly (the so-called aging of the aged): estimates project that the frail elderly (85+) population will increase 3 to 4 times as fast as the general population.

INSTRUCTOR RESOURCE/ACTIVITY

CONTENT

The elderly are at greater risk of chronic, debilitating conditions than are younger cohorts.

- The aged population (65+) accounts for a disproportionate share of health care expenditures (Waldo, et al., 1989):
  - In 1987, approximately $162 B was spent for personal health care on behalf of 30 million aged people in the U.S.
  - That is the equivalent of 12% of the population accounting for 36% of health care expenditures.

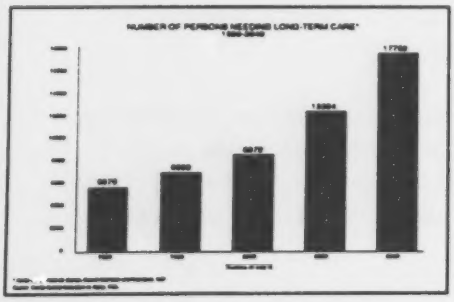
Overhead: Prevalence of Selected Impairments

	All Ages	65+
Visual Impairments	40.4	136.6
Hearing Impairments	82.9	283.6
Arthritis	12.1	464.7
Orthopedic Impairments	81.8	128.2
Heart Conditions	76.4	277.0
Hypertensive Disease	113.4	378.6
Arteriosclerosis	15.1	97.0
Emphysema	9.3	42.9

Source: House Select Committee on Aging, July 1985.

- Survey data have shown that the proportion of people with multiple diseases increases with age; it is estimated that the non-institutionalized elderly have an average of 3 chronic conditions, while the institutionalized elderly average 5.
  - As the incidence and prevalence of individuals with chronic conditions increase, the demand for services will also increase.
- In addition to acute care services, the aged make extensive use of long-term care services, such as home health care, home making, day care, and rehabilitation.
  - The number of elderly people who require such long-term care assistance is likely to increase as this segment of the population expands.

Overhead: Number of Persons Needing Long-Term Care 1980-2040



  - In 1988, approximately 25% or 6.9 million of the elderly needed some long-term care services. Of these, only about 15-25% actually required nursing homes. (Senate Special Committee on Aging, February, 1988).
  - The number of Americans whose lives are indirectly affected by health conditions requiring long-term care is even greater -- a national poll conducted in 1987 indicated that 60% of respondents had had some experience with the need for long-term care in their own families or through close friends.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Handout: Out-of-Pocket Costs

Health care is the only budgetary category in which the elderly spend more money than younger cohorts (Senate Special Committee on Aging, 1988).

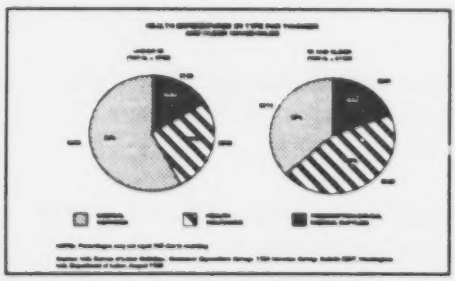
- One of the greatest threats to the economic security of the elderly is the high out-of-pocket cost of health care.
- The elderly spend more on health care -- both in actual dollars and as a percentage of total expenditures -- than younger groups.
- Consumer units with a reference person aged 65-74 paid an average $1,340 out-of-pocket (i.e., not including Medicare/ Medicaid-covered expenditures) in 1984.
  - Those 75+ paid $1,487.
  - While those younger than 65 paid $785.
- Furthermore, since the total budget of the elderly is often smaller than younger consumer units, the higher amount spent on health care has a substantially greater impact.

Overhead: Out-of Pocket Health Expenses as a % of Personal Income

• 1977-1988:	12%
• 1985:	15+%

- In fact, elderly out-of-pocket costs are now a higher percentage of their income than when Medicare and Medicaid began in the mid-1960s (House Select Committee on Aging, 1985):
  - In 1977, health care costs of the elderly accounted for 12% of their income.
  - By 1985, the elderly were spending just over 15% of their limited income for health care.

Overhead: Health Expenditures by Type for Younger and Older Urban Households: 1984



Despite the fact that older households have lower incomes and fewer household members, in 1984, urban elderly units spent over three times as much as their younger counterparts on health insurance, not including the Federal share of Medicare, ($625 vs. $202) and twice as much on prescription drugs and medical supplies ($261 vs. $128) (U.S. Bureau of Labor Statistics, 1986).

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INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead: Nursing Home Expenditures

- Public Expenditures:
  - 1965 $70CM
  - 1981 $13.5B
- Public and Private Expenditures:
  - 1981 $24B
  - 1987 $40.6B

Significantly, the single greatest source of out-of-pocket liability for older persons derives from long-term care.

- Problems exist with the availability of, and reimbursement for, long-term care.
- Nursing home expenditures have increased dramatically:
  - Public expenditures for long-term care for the elderly in nursing homes have risen from $700 million in 1965 to $13.5 billion in 1981.
  - When private funds are considered in addition, close to $24 billion was spent in 1981 caring for the nation's elderly and disabled in nursing homes alone.
  - By 1987, that figure had risen to $40.6 billion.
- Nursing home stays account for 80% of the expenses incurred by elderly persons who experience very high out-of-pocket costs for health care, i.e., over $2,000 per year.
  - Neither private insurance, nor Medicare provide significant coverage for long-term care.
  - Medicaid is available to the poor and indigent, but as a state program, it does not offer comprehensive or uniform coverage nationwide.
- Despite the need and growing demand for long-term care, many people do not receive the care they require (Senate Special Committee on Aging, February 1988).
  - Only those who are dying (and are therefore entitled to hospice care) or those who live in poverty (and therefore may be entitled to Medicaid) are protected against the cost of long-term care.
  - The House Select Committee on Aging estimates that 200 million Americans of all ages are underinsured against long-term costs.
  - It should be noted that the Catastrophic Coverage Act of 1988 is expected to have little impact on meeting long-term care needs.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

While access to and affordability of health care are issues that significantly impact older adults, the elderly are not the only groups negatively affected -- and this does not bode well for current or future cohorts.

Recent studies have concluded that inequities in health services exist even among working-age, insured adults (Hayward et al, 1988):

- Insured adults of working age were 3.5 times as likely as the elderly to have not received needed supportive medical services (including medications and supplies).
- These insured working-age adults were 3.4 times as likely to have had major financial difficulties due to illness.
- Among working-age, insured adults, the poor were 4.4-times as likely as non-poor to have not received needed supportive services and 5.2 times as likely to have had major financial problems due to illness.
- The study concluded that insured working-age adults have less access to medical care than the elderly; and that within this category, poor, Black, or Hispanic persons are at risk for even greater problems with access to care.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE (90 minutes) 2. Describe Medicare reimbursement for care. [Note to Instructor: Much of the information in this sub-section is based upon the *Medicare Handbook of 1989*. You will need to obtain the most recent edition to update this information for 1990 and beyond.] Handouts: Table 1; Chart 2; Chart 3; and Table 2	THE MEDICARE PROGRAM Medicare is a Federal medical insurance program, primarily geared to pay for the in-hospital treatment of acute illnesses. It is run by the Health Care Financing Administration (HCFA) of the U.S. Department of Health and Human Services (DHHS). Medicare is the most widespread type of health insurance for older Americans: • Approximately 95% of those 65 and older are covered by Medicare, substantially more than the proportion of the population with health care coverage in 1965, prior to the introduction of Medicare (and, also a higher percentage of persons with health care coverage than is found in the under-65 population). • Approximately 21% of the elderly say that Medicare is their only form of coverage (Harris, 1986). Many people incorrectly assume that at age 65 all medical expenses are covered by Medicare. • Currently, Medicare payments only cover approximately 49% of the total medical costs of the elderly. • This is due, in part, to the medical needs of the elderly that include preventive care, care of chronic conditions on an outpatient basis, long-term care, and/or supportive care, which are not covered by Medicare. • In most states, physicians are not required to accept Medicare as payment in full -- therefore, there is a need for additional coverage to minimize high out-of-pocket expenditures. • Older people are currently spending 18.5% of their income on health care -- more than they were spending before the passage of the Medicare bill. • The poorer one is, the greater the percentage of income spent on medical care.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	There are three core components of any insurance program: • Who is eligible (entitlement). • What is covered. • How the program is administered.
Overhead: Entitlement • 65+ and eligible for Social Security or Railroad Retirement benefits. • Under 65, but entitled to Social Security disability for 24 months. • End-stage renal disease.	<u>Entitlement</u> The Medicare program is extended to every eligible person, regardless of income. However, not everyone is eligible. Medicare entitlement (eligibility) is extended to individuals who are (Doress and Siegal, 1987): • Aged 65 and over, and eligible for Social Security or Railroad Retirement benefits. (Retired Federal, state, and local government workers who are in pension plans separate from Social Security may retain their group health plans after retirement. All government workers hired after 1985 must contribute to the Medicare Trust Fund through payroll deductions, whereas government employees hired pre-1985 have the option to contribute). • Under 65, but have been entitled to Social Security disability payments for 24 consecutive months. • Diagnosed with end-stage renal disease. Individuals who are eligible for Medicare coverage do not have to pay for hospital insurance (Part A), which is automatic. • Medical insurance (Part B) is optional coverage. • Individuals, who are eligible for Medicare, may elect this option, in which case they must pay a monthly or quarterly premium. • Most eligible persons elect to get the optional medical insurance. The majority of ineligible people are women and older recent immigrants. If an individual is 65 or older and not eligible for Medicare, he/she may purchase Medicare Coverage, just like buying other private health insurance, by paying a monthly premium.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- In 1989, the hospital insurance (Part A) premium is $156/month, while the medical insurance (Part B) premium is $27.90/month.

- At this rate, the premiums are prohibitively expensive for many people who do not automatically qualify for coverage.

Before individuals reach age 65, they should determine whether they are eligible for Medicare and whether they want to sign up.

- The local Social Security Administration Office should have information and applications.

- These decisions should be made before the 65th birthday, regardless of when the individual plans to retire.

- If an individual does not sign up for Medicare when he/she is first eligible, subsequent enrollment can be delayed and premiums can be *10 percent higher*.

Handout: Medicare Contact Sheet

- You can use this contact sheet to enter important Medicare phone numbers, for your own or your patients'/clients' use.

<u>Coverage</u>

- There are two parts to the Medicare insurance program, Part A and Part B.

Overhead: Medicare : Part A

- Part A is hospitalization insurance (HI); no premium is charged for those who are eligible.

  - Part A is included when an individual signs up for Social Security benefits or for Medicare.

  - Part A provides limited coverage for:

    -- Inpatient hospital care.
    -- Inpatient care in a skilled nursing facility.
    -- Home health care.
    -- Hospice care.

- Part A -- hospitalization insurance (HI); no premium for those who are eligible.
- Covers:
  - Inpatient hospital care
  - Inpatient care in a skilled nursing facility (SNF)
  - Home health care
  - Hospice care.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Medicare: Part B • Part B -- optional insurance for medical services. • Covers: - Doctors' services - Outpatient hospital care - Diagnostic tests - Durable medical equipment - Ambulance service - Some other health services and supplies that are not covered by Part A.	• Part B is supplementary medical insurance (SMI) for services other than hospitalization. - Part B is optional coverage. - Part B provides limited payment for: -- Doctors' services. -- Outpatient hospital care. -- Diagnostic tests. -- Durable medical equipment. -- Ambulance service. -- Some other health services and supplies that are not covered by Part A.
Handout: Medicare Coverage	Both Part A and Part B of Medicare have amounts that beneficiaries must pay out-of-pocket (e.g., premiums, deductibles, coinsurance payments) or through coverage from another private insurance plan. • Out-of-pocket amounts are set annually by formulas established by Congress. • New payment amounts go into effect each January 1. • A few of the services Medicare does not pay for are: - Routine physical examinations and tests. - Any care considered to be mainly custodial, such as most nursing home care. -- It's important to realize that payment for intermediate or custodial nursing home care, rather than skilled care (which is covered, at least partially) depletes many older people's assets. -- There are 2 tests that must be met for nursing home care to be covered by Medicare: (i) care must be skilled, not merely custodial and (ii) care must be rehabilitative, i.e., based on some chance of recuperation.
Overhead: Some Services Not Covered • Routine physical examinations/tests. • Custodial care. • Eyeglasses and hearing aids, as well as examination for prescription or fitting of such devices. • General dental work. • Routine foot care. • Drugs/medicines. • Meals; homemaker services. • Most care outside the U.S.	- Eyeglasses and hearing aids, and the examinations for prescribing or fitting them (except for cataracts). - General dental work.

- Routine foot care.

- Outpatient drugs and medicines, prescription and non-prescription. (Although this is anticipated to change with Catastrophic Care coverage.)

- Meals, homemaker services, and more than part-time nursing care when those services are part of a home health care arrangement.

  -- Part-time or intermittant nursing care provided by, or under the supervision of, a resistered professional nurse can be covered.

- Care outside the U.S., except for specified circumstances, not including tourist travel, that permit limited coverage in Canada and Mexico.

Program Structure

Although Medicare is a Federal program, Medicare claims are not handled by the Federal government.

Claims are processed by private insurance organizations in each state, called intermediaries and carriers.

Overhead: Intermediaries and Carriers

- Intermediaries make coverage decisions on services in hospitals, SNFs, home health agencies, and hospices.
- Carriers handle claims for doctors and other suppliers services under Part B.

- *Intermediaries* are insurance organizations that process Part A claims.

  - As such, they make coverage and payment decisions on services in hospitals, skilled nursing facilities (SNFs), home health agencies, and hospices.

  - Intermediaries apply the standards set by the Health Care Financing Administration (HCFA) as though they were Federal employees.

- *Carriers* handle claims for services by doctors and other suppliers covered under Medicare's medical insurance program (Part B).

  - They are less tightly constrained than intermediaries.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• Since Medicare claims are handled by private entities in each state, the claims-processing systems, forms, and even the responsiveness to beneficiaries' problems vary significantly from one state to another.
Overhead: PROs Review hospital care of Medicare patients to ensure that it is: • Reasonable & necessary • Provided in the right setting • Meeting quality standards.	*Peer Review Organizations* (PROs) are groups of practicing doctors and other health care professionals who are contracted by the Federal government to review the *hospital care* of Medicare patients. • Each state has a PRO that assists Medicare in ensuring that care: - Is reasonable and necessary. - Is provided in the appropriate setting. - Meets the standards of quality accepted by the medical profession. • Preadmission screening, part of the peer review process, is intended to protect beneficiaries from having to pay out-of-pocket costs for treatments not covered by Medicare because they could have been provided in a more appropriate setting. • PROs may require pre-approval of hospitals or physicians based upon their Medicare track records. • PROs have the authority to deny payments if care is not medically necessary or is not delivered in the most apropriate setting. - PROs have the authority to deny hospital payment. - PROs may not deny payment to physicians, but they may appeal physician payment and recommend physician removal from the Medicare program. • PROs respond to requests made by beneficiaries or providers for review-of-noncoverage decisions, and also investigate individual patient complaints.

The Payment Process

Payments are made from the Medicare Trust Fund, held separately from the Social Security Trust Fund, financed by:

- The Social Security (FICA) tax paid by currently employed individuals.
- The premiums paid by those currently on Medicare.

Although it's called a trust fund, the accumulated monies are not being saved.

- We are spending the money to offset current budget deficits.
- Right now, there is more money going into the fund than is being spent.
  - The current situation reflects good demographics -- namely, a large labor force supporting contributions.
  - But future demographic shifts (increasing the proportion of elderly and, at the same time, decreasing the labor force and proportionate Medicare contributions) are likely to create serious fiscal problems.
  - Future fiscal dilemmas may necessitate cutbacks, rather than expansion, in Medicare coverage.

Medicare will pay only for those facilities and agencies that it approves.

- Providers of services and suppliers must meet all licensing requirements of state or local health authorities to receive Medicare approval:
  - Medicare automatically accepts JCAH certification for hospitals, and also accepts some state-approved hospitals.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	- In addition, Medicare providers must comply with Title VI of the Civil Rights Act that prohibits discrimination due to race, color, or national origin.
Overhead: Providers • Hospital. • Skilled nursing facilities. • Home health agency. • Comprehensive outpatient rehabilitation facilities.	- In general, Medicare will not pay for care received from a hospital, skilled nursing facility, home health agency, hospice, or outpatient rehabilitation *provider* that is not certified to participate in the program (the exception is, in some cases, Medicare can help pay for emergency care in a qualified non-participating hospital).
Overhead: Suppliers • Ambulatory surgical centers. • Independent physical therapists. • Independent occupational therapists. • Clinical laboratories. • Portable X-ray suppliers. • Dialysis facilities. • Rural health clinics.	- Certain *suppliers* also must be certified to participate in order to receive Medicare payments. These include: -- Ambulatory surgical centers. -- Independent physical therapists. -- Independent occupational therapists. -- Clinical laboratories. -- Portable X-ray suppliers. -- Dialysis facilities. -- Rural health clinics.
Overhead: PPS Hospital care (Part A) is paid fixed amounts under the Prospective Payment System (PPS.)	Medicare pays for most inpatient hospital care under the *Prospective Payment System* (PPS). • Under PPS, hospitals are paid fixed amounts based on the principal diagnosis for each Medicare hospital stay. • PPS represents a shift away from retrospective cost-based reimbursement principles for hospital payments to national payment rates based upon diagnosis-related groups (DRGs).
Overhead: Medicare Cartoon 	- Fixed payment amounts are based upon median estimated costs of patient care computed on each of 467 DRGs. - DRGs are based upon principal admitting diagnosis, patient age, and whether surgery was performed. • In some cases, the Medicare payment will be more than the hospital's costs; in other cases, the payment will be less than the hospital's costs. • In special cases, where costs for necessary care are unusually high, or the length of stay is unusually long, the hospital receives additional payment.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

The PPS is not intended to change Medicare hospital insurance (Part A) protection, nor is it meant to be applied to determine a patient's length of stay or the extent of care received.

- The law requires participating hospitals to accept Medicare payments as payment in full except for the deductible for which the beneficiary is responsible.

- Hospitals are prohibited from billing the Medicare patient for anything other than the applicable deductible amounts, plus any amounts due for noncovered items or services, such as television, private duty nurses, or cosmetic surgery.

Medicare physician payments (Part B) are primarily based on what the law defines as "reasonable charges" or the amounts approved by the Medicare carrier.

- Due to the way these approved amounts are determined, together with high rates of inflation in medical care prices, the *approved charges* are frequently less than the *actual charges* billed by physicians and/or suppliers.

- Medicare medical insurance usually pays only 80 percent of the approved charge even when that is less than the actual charge or bill; on approved charges, the patient pays the other 20% as coinsurance.

- When a medical insurance claim that is reimbursable on a reasonable charge basis is submitted, the carrier compares the actual charge shown on the claim with the customary and prevailing charges for that service.

- The charge as approved by the carrier will be the lowest of three possible figures:

  - The *customary charge* -- the charge most frequently made by that doctor or supplier for each item or service.

  -or-

  - The *prevailing charge* -- determined as a result of all customary charges in the locality for each item or type of service; prevailing charges for a given service are calculated based upon the 75th percentile of customary charges of all physicians with the same characteristics (e.g., board-certified surgeons).

  -or-

  - The *actual charge* -- the amount as billed.

Overhead: Charges

- Customary
  - The charge most frequently made for each item/service by that doctor/ supplier.
- Prevailing
  - Result of all customary charges for an item/service in a given locale.
- Actual
  - The amount billed.

Some states require physicians to accept the approved Medicare rate as payment in full, whereas states that have no such requirement permit physicians to hold patients responsible for paying any charges over the approved Medicare reimbursement.

- The State of Massachusetts requires physicians to accept assignment; this requirement is now in litigation since physicians hold that the state cannot tell them what they can charge.

- Point to emphasize: While Medicare is a Federal program, such differing state requirements can favorably or unfavorably impact the out-of-pocket costs the elderly are expected to absorb.

- In addition, while the coverage provided by the Medicare program is the same in every state, not all health care providers and suppliers accept Medicare patients. As a result, the opportunity to use Medicare coverage differs within states, as well as between states.

In 1984, the Deficit Reduction Act (DEFRA) established the concept of participating physicians, those who voluntarily agree to accept assignment (Gornick, 1985).

- When the *assignment method* is used, the doctor or supplier agrees to accept the charge approved by the Medicare carrier for the covered services.

- As of 1985, 69% of physicians accepted assignment for all services; however, there have been extreme variations by state:

  - 87% assigned in Rhode Island
  - 17% assigned in South Dakota.

- In addition, assignment rates vary considerably by the characteristics of the physician and the type of services rendered.

- In states that do not require physician acceptance of Medicare reimbursement as payment in full, doctors and suppliers can sign agreements to become Medicare-participating doctors or suppliers.

- This means that they have agreed in advance to accept *assignment* on all Medicare claims.

- Doctors and suppliers are given the opportunity to sign participation agreements each year.

- Medicare-participating doctors and suppliers can display emblems or certificates that show they accept assignment on all Medicare claims.

• The assignment method, in which the doctor or supplier receives the medical insurance payment directly from Medicare, can save the beneficiary time and money.

- Under assignment, Medicare pays the doctor or supplier 80% of the approved charge, after subtracting any part of the $75 deductible that has not previously been met by the beneficiary.

- The doctor or supplier can charge the beneficiary only for the part of the $75 deductible not met and for the coinsurance, which is the remaining 20% of the approved charge.

- In addition, the doctor or supplier can charge for any services that are not included in the Medicare medical insurance coverage, but the doctor or supplier on assignment cannot bill the beneficiary for the difference between the approved charge and his/her actual charge.

• If the doctor or supplier *does not accept assignment*, Medicare pays the beneficiary 80% of the approved charge, after subtracting any part of the $75 deductible not previously met. The doctor or supplier can bill for his or her actual charges.

• In most states, physicians can decide on an individual case-by-case basis whether to accept assignment for a given patient -- unless the doctor has signed an agreement to accept assignment; in which case, all Medicare patients must be billed on an assignment basis.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- The names and addresses of Medicare-participating doctors and suppliers are listed by geographic area in the *Medicare-Participating Physician/Supplier Directory*. The directory for each local area can be obtained free of charge from the local Medicare carrier. Also, this directory is available for review in all Social Security offices, state and area offices of the Administration on Aging, and in most hospitals.

Handout: Assignment Method

- As you can see from the comparison of assignment and non-assignment scenarios, there can be a significant difference in the out-of-pocket expenses of the elderly, depending upon whether a physician accepts assignment.

Optional Activity for States That Do Not Require Physican Acceptance of Approved Reimbursements.

<u>Group Discussion (15 minutes)</u>:

Use flipchart to record responses to Questions for Discussion.

Questions for Discussion

- What have been the trends in your local area regarding physician/supplier acceptance of assignment?
- What have been the major problems related to these trends and their impact on the elderly that you've encountered?
- What successes have you experienced in remedying some of these problem areas?

<u>The Private Health Plan Option</u>

In addition to the traditional fee-for-service Medicare option, Medicare offers a Private Health Plan Option.

- Under this arrangement, many prepayment plans, such as *health maintenance organizations* (HMOs) and *competitive medical plans* (CMPs) have contracts with Medicare.
  - These prepayment plans must offer the standard Medicare package at a minimum, but may offer other benefits in addition.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- These plans receive direct payments from Medicare for services covered by both hospital insurance (Part A) and medical insurance (Part B).
  - -- Basically, these are capitated payment plans, whereby the HMOs/CMPs are paid pre-established amounts by the government for different classes of patients (e.g., over 85, disabled; institutionalized).
  - -- These capitation rates are based upon 95% of the average government cost of taking care of Medicare beneficiaries in that local area 12-18 months earlier.
- The beneficiary may also pay an additional monthly premium to the HMO/CMP, in most cases, and must agree to receive all medical services through the health plan's physicians, clinics, and hospitals or through referral to other HMO-approved providers.

- To determine whether there are prepayment plans with Medicare contracts in your area, contact a Social Security office.

- To obtain information about how to enroll in an HMO or CMP, what benefits are provided, and what the membership rules are, you should contact the HMO or CMP directly.

Overhead: The Advantages of the Private Health Plan Option From the Beneficiary's Perspective

HMOs/CMPs:

- Cover most health care based on fixed premium and low copayment.
- May offer services not generally covered by Medicare, at no additional cost.
- May reduce paperwork claims burden.

- Advantages of this option from a beneficiary's perspective include:
  - HMOs and CMPs generally cover most health care costs, including Medicare deductible and coinsurance charges, based upon fixed monthly premiums and minimal copayments.
  - Many HMOs and CMPs offer additional services beyond Medicare coverage, at no additional cost; such as:
    - -- Preventive care.
    - -- Dental care.
    - -- Hearing aids.
    - -- Eyeglasses.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	- HMOs and CMPs may reduce the paperwork burden on the elderly since the HMO/CMP handles the paperwork and, therefore, the elderly generally do not have to file any claims, themselves.
	• The primary disadvantages are that beneficiaries have limited-to-no choice of providers since they must use the professionals associated with the health plan, and there may be a risk of underservice.
Handout: Beneficiary Requirements for Private Health Plan Option	• In order to elect this option, the beneficiary must meet certain requirements, as shown in the handout.
Handout: Catastrophic Care	<u>Catastrophic Health Care</u> The Medicare Catastrophic Coverage Act of 1988 (Public Law 100-360) has expanded Medicare to better insulate the elderly against financial devastation due to doctor, hospital, and outpatient prescription drug costs during acute catastrophic illness:
Overhead: Summary of Part A Benefits • Hospital Benefit (Part A): Effective January 1, 1989, beneficiary pays an annual deductible of $564 (estimated for 1989) and Medicare pays the balance regardless of the number of days of hospitalization or the costs. • Skilled Nursing Facility Care: Effective January 1, 1989, 150 days of care per year with 20% copayment for first 8 days. • Hospice Care: Effective January 1, 1989, beyond 210 days of care if recertified as terminally ill. • Home Health Care: Coverage extended as of January 1, 1990, to provide for intermittent care up to 6 days a week; daily care for up to 38 consecutive days.	• Expanded coverage that limits the amount Medicare beneficiaries must pay for inpatient hospital and skilled nursing facility care, as well as enhanced benefits for hospice and skilled nursing facility care went into effect January 1, 1989. • Changes that limit beneficiary payments for doctors' services and for medical supplies, as well as new coverage for preventive breast cancer screening, respite care, certain prescription drugs, and improved home health benefits go into effect January 1, 1990.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• January 1991, an expanded prescription drug benefit will begin. • The new benefits are available automatically to Medicare beneficiaries or to eligible individuals.
Overhead: Summary: Part B Benefits • Medical benefits (Part B): Begining January 1, 1990, beneficiary pays $75 deductible and 20% copayment up to $1,370. Medicare then pays all other allowable charges for the rest of the year. • Drug Benefit: Certain drugs covered in 1990. Most prescription drugs, insulin covered in 1991 with Medicare paying 50% of allowable charges over $600. In 1992, Medicare pays 60% of allowable charges over $652 (estimated) deductible. If finances permit, Medicare pays 80% of allowable charges over yet-to-be set deductible in 1993.	The new medical insurance (Part B) benefits will be phased in, starting January, 1990. • These benefits are not automatic. • Enrollment in Part B is still optional, but an individual cannot enroll in Part B without also buying the new catastrophic benefits. Two new premiums are added to pay for the catastrophic coverage: • One is an addition to the basic monthly Part B premium, and the other will be a new annual income-tax-related premium. - The extra charge to be added to the basic Part B premium will be $4 per month in 1989 and will gradually increase to $10.20 per month in 1993. -- For a Social Security or Railroad Retirement beneficiary, any increase in the Part B premium cannot be greater than the cost-of-living adjustment in his/her monthly benefit for the year. -- In other words, if at some time in the future the Part B premium were increased $6 per month and the cost-of-living adjustment for the year amounted to $5 a month, the increase in the monthly premium would be limited to $5. - This amount is in addition to the basic Part B premium, which is $27.90 in 1989. • In addition to the Part B premium for enrollees, an annual supplemental premium based upon income tax liability is to be paid on Federal Tax returns for 1989.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- This must be paid if an individual is entitled to or eligible for Medicare Part A for more than 6 full months of the taxable year and their Federal income tax liability for the year is $150 or more.
  - -- The only exceptions are for certain Medicare-eligible individuals living in a foreign country and those who pay a monthly premium for Part A coverage.
  - -- The premium does not have to be paid if tax liability for the taxable year is less than $150.
- The supplemental premium rate represents a 15% surcharge or $22.50 for each $150 of Federal income tax liability for the 1989 tax year.
  - -- For example, if a person pays $300 in Federal taxes, the premium rate will be $45 in 1989.
  - -- The premium rate for each $150 of tax liability is scheduled to increase annually.
- There is a limit on the maximum amount one must pay.
  - -- 1989: $800 maximum supplemental.
  - -- 1990: $850.
  - -- 1991: $900.
- The maximum is double for a married couple, as long as both were eligible for Part A for more than 6 full months during the taxable year.

Activity: Catastrophic Care Discussion (15 minutes):

The passage of the Catastrophic Coverage Act has generated increased political activity, as well as media exposure.

- Note to the Instructor: You may wish to compile and discuss recent news articles detailing emergent trends in this area.

-OR-

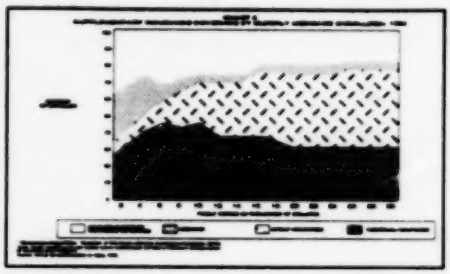
- Discuss suggested Questions for Discussion

Questions for Discussion:

- What do you think about the provisions of the Catastrophic Coverage Act?
- What do you think about the associated financing mechanisms?
- What other models of health care delivery might positively impact costs?
- What are the implications of costs of health care coverage for rationing of medical services to the elderly?

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE (15 minutes)	PRIVATE INSURANCE
3. Describe private insurance designed to protect the elderly against the high costs of health care.	Medicare is only intended to provide basic protection against the high cost of health care; it does not cover all medical expenses, nor does it cover long-term care expenses. For these reasons, many private insurance companies sell policies designed to pick up where Medicare leaves off -- these supplemental policies are often labeled as *"Medigap"* insurance.
Overhead: Medigap Insurance Medigap insurance is typically designed to supplement coverage of acute care costs, not long-term costs.	<u>Medigap Insurance</u> Medigap insurance is typically designed to supplement coverage of acute care costs, not long-term care costs. • The Federal government does not sell or service such insurance. • However, government, usually at the state level, does regulate the industry. • For example, as new Medicare benefits are phased in, insurers are expected to change their benefit plans and premiums, and to notify policy holders of such changes. • There are Federal criminal and civil penalties for certain actions in selling health insurance to supplement Medicare. - Penalties may be imposed against any insurance company or agent who knowingly sells a policy that duplicates Medicare coverage or any private health insurance that the beneficiary already owns, but that will not pay duplicate benefits. - Penalties also apply if insurance agents misrepresent that they are employees or agents of the Medicare program or of any government agency. - Penalties also exist for making a false statement about a policy's meeting legal standards for certification when it does not, and for using the mails in a state for delivering advertisements of health insurance policies to supplement Medicare if the policies have not been approved for sale in that state.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Supplementary Insurance Coverage by Elderly Medicare Enrollees: 1988.	Approximately 72% of the elderly are covered by some form of private supplementary insurance (Senate Special Committee on Aging, 1988).



- The extent of additional private health insurance coverage varies considerably among different sub-sets of the elderly (Harris, 1986):
  - Groups least likely to have private coverage included:
    - -- Blacks: 37% coverage.
    - -- 85 and older: 52% coverage.
    - -- Those not living with a spouse: 63% for those living alone; 58% for those living with children/ friends.
  - For some of these people, Medicaid closes some, but not all, of the gap.
- The likelihood of an older person having private insurance increases with family income.
  - 44% of those with incomes greater than $5,000 had some form of supplemental insurance.
  - 87% of those with incomes greater than $25,000 were covered.

Many people are confused about the nature of supplemental insurance.

Handout: Who Would Pay for Nursing Home

The 1986 Commonwealth Fund Commission study found (Harris, 1986):

- The elderly are uncertain about who would pay the cost of care, such as nursing home care, needed for a long-term illness.
- 2/3 either believed that private insurance would pay (incorrect in most cases) or that Medicare would pay (incorrect under current policy) or they were unsure who would pay.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: LTC Insurance • Private financing mechanism. • Intended to cover: - Chronic illness. - Care over long time period.	Long-Term Care (LTC) Insurance Long-term care (LTC) insurance is an emerging private financing mechanism for long-term care services -- those services required due to a chronic illness or a condition lasting over a period of time. • The number of companies selling LTC coverage has quadrupled to about 100 in the past few years. - There are now about 1/2 million policies in force; however, this is not very many considering the size of the population that could encounter future long-term care needs. - Approximately 18,000 of these policies are employer-sponsored. Consumers Union, the nonprofit testing organization that publishes *Consumer Reports* studied 53 LTC policies, finding (May, 1988): • Many of the policies were very expensive -- people who buy them at age 65 may have to pay $100/month premiums for adequate coverage. • The policies are severely limited in their coverage. • Consumers will confront "a crazy quilt of charges, waivers, and limitations that confuses even the insurance agents who sell them." • In fact, when all 50 state-insurance commissioners were asked what complaints had developed from the sale of LTC insurance, they reported consumers complained most often about the unanticipated limitations on the coverage provided by their policies -- consumers believed their policies covered them for kinds of care for which no such coverage existed.
Overhead: LTC Facilities • Skilled • Intermediate • Custodial	There are three types of long-term care facilities: skilled, intermediate, and custodial (*Consumer Reports*, 1988): • To some extent, these three levels of care are an artifact of Medicare since it defines what care will be covered and reimbursed.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- Most facilities do not typically offer all three levels of care.

- It should be noted that the terms of OBRA 1987 include the requirement that the staffing standards for intermediate care will be the same as for skilled care; originally this was to go into effect October 1989, but is now expected to go into effect October 1990.

- A policy may or may not cover care in all three types of facility, and different policies may define the three types differently. In general, until OBRA 1987 goes into effect, the definitions include the following:

Overhead: Skilled Care

Care must be prescribed by a doctor, staffed by a skilled nurse, and be available for 24 hours a day. These facilities are licensed by the state, and daily medical records are kept on each patient.

- *Skilled nursing facilities (SNFs).* Care must be prescribed by a doctor, staffed by a skilled nurse, and be available for 24 hours a day.

  -- These facilities are licensed by the state, and daily medical records are kept on each patient.

  -- Skilled care represents only about 14% of care in nursing homes.

Overhead: Intermediate Care

- Level of care is less than in SNF.
- Health-related care not requiring hospital or skilled nursing services.

- *Intermediate care facilities (ICFs).* In such facilities, care may require the skills of a nurse, but the level of care is somewhat less than that given in a skilled-care facility.

  -- For example, a nurse may be on hand only to give patients injections or to change their bandages.

  -- The facility may not include an RN on staff, as long as it has a nurse consultant.

  -- The facility may be licensed and may provide post-hospital and rehabilitative nursing care.

Overhead: Custodial Care

- Provides help with ADLs.
- Care by individuals without professional skills.

- *Custodial.* Care includes helping a person with such routine activities as getting out of bed, walking, eating, and bathing. It may be given by people without professional skills or training, but some insurance policies may require that the facility be licensed.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• The best policies pay benefits for all three kinds of care in all three types of facilities.
	- Note that policies can imply coverage where none exists. For example, a policy might provide coverage for all three types of care, but require that the care be given in only one type of facility, such as a nursing home that provides skilled care.
	- Custodial care is sometimes covered only if it is provided in a skilled-nursing or intermediate-care facility.
Handout: What's in a Good Policy	- Some policies pay no benefits for custodial care, no matter where it is given.
	-- That's a significant deficiency.
	-- Very few people need skilled care for long periods; much of the care in nursing homes is of the intermediate or custodial variety. (For example, persons with dementia may require custodial care only.)
	-- Stroke victims, in particular, often require a long period of custodial care while recovering.
	Consumers Union suggested that LTC insurance be appraised in terms of a range of features.
	The National Association of Insurance Commissioners (NAIC) has written model laws for states to adopt in regulating LTC policies.
	• So far, 11 states have adopted this model.
	• States in which insurance policies must meet the NAIC standards are: Arizona, Hawaii, Indiana, Iowa, Kansas, Nebraska, North Carolina, North Dakota, Oklahoma, Oregon, and Virginia. Wyoming and Georgia were about to adopt the model law as of 1988.
	• Consumers Union lauded several features of the model including:
	- Waivers denying coverage for specified health conditions are prohibited.

- Companies cannot offer substantially greater benefits for skilled nursing care than for custodial and intermediate care.

- Policies must also be guaranteed renewable, but state insurance commissioners may allow cancellation in limited circumstances.

- However, several features were seen as undesirable, including:

  - Companies can require a hospital stay before providing benefits for nursing-home care (even through Medicare no longer requires prior hospitalization for its covered nursing-home care benefits), and can require that a policyholder receive skilled care before qualifying for intermediate, custodial, or home-care benefits.

  - Although the NAIC model prohibits companies from excluding coverage for Alzheimer's disease, it doesn't require policies to specifically spell out that the disease is covered.

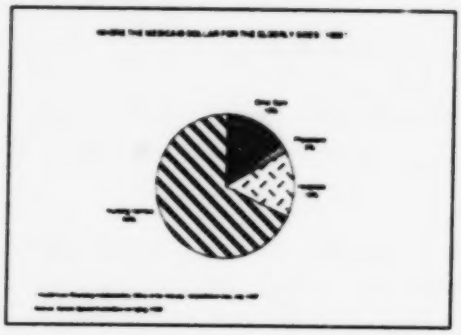
- This is a particularly hard kind of private insurance to write.

  - People in their 30s have little incentive to buy in; even those in their 60s are typically not motivated to purchase this insurance.

  - People don't want to purchase these policies until they need such services, and insurance companies can't stay in business covering only those over 80 for whom LTC is a likely event.

- Once good guidelines for coverage are developed, it may not be cost effective for insurance companies to stay in this market.

- In addition, there are "moral hazard" issues -- people who think they are going to need LTC will purchase coverage and, then their families may be less inclined to fight to keep them out of nursing homes since the cost of such care would be covered by the policies.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE (30 minutes) 4. Describe the Medicaid Program. [Note to Instructor: This section may be enhanced by determining eligibility and coverage services in trainees' state(s). The preparation of a summary (either a handout or as a series of overheads) of the state's approach can be used as the basis for an optional group discussion activity.] Handout: Percent Distribution of Personal Health Care Expend By Source of Funds for People 65+, By Type of Service, 1984 Overhead: Where the Medicaid Dollar for the Elderly Goes, 1986. 	THE MEDICAID PROGRAM The Medicaid program, designed to pay for medical services to low-income people, is administered by states under Federal guidelines: • The Federal government contributes between 50% of the costs (to states with the highest average income levels) and 78% (to states with the lowest average income levels). • State, and sometimes local, taxes provide the remainder of the funding. Most older Americans are excluded from Medicaid coverage since they do not meet the low-income eligibility requirements. • Medicaid (a Federal-state program) pays about 13% of the personal health care expenditures for the elderly. • Most of these payments are for the small proportion of the elderly population who use nursing homes. • Medicaid is the major source of public financing for nursing home care; approximately 89% of all public expenditures for nursing home care are paid by Medicaid (Senate Special Committee on Aging, 1987): - Medicaid paid for 42% of all nursing home expenditures in 1985. - Consumers paid for another 51% through direct patient payments. - It is anticipated that the Castatrophic Coverage Act provisions will impact the percentage of nursing home costs covered by Medicare, contributing to an increase in the percentage covered by Medicare and a corollary decrease in the other categories of public and private coverage. Programs differ at the state level since each state determines its own standards for eligibility and services within parameters set by the Federal government.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Categorically Needy • Recipients of Aid to Families with Dependent Children (AFDC). • Recipients of Supplemental Security Income (SSI).	• State Medicaid programs are required by Federal law to cover the *categorically needy:* - All persons receiving assistance under the Aid to Families with Dependent Children (AFDC) program. - Most people receiving assistance under the Supplemental Security Income (SSI) program.
Overhead: Medically Needy Income and resources cover daily living expenses, but are not sufficient to cover medical care.	• States may cover the *medically needy* persons whose income and resources cover their daily living expenses, but are insufficient (based upon income levels set by the state) to pay for medical care. - 32 states and jurisdictions have medically needy programs that can cover the elderly (Senate Special Committee on Aging, 1987). - As a result of state variations, individuals with identical circumstances may be eligible to receive benefits in one state, but not another.
Overhead: Required Service Offerings • Inpatient hospital services. • Outpatient hospital services • Laboratory and x-ray services. • SNF services for individuals aged 21 or older. • Rural health clinic services. • Early and periodic screening, diagnosis, and treatment services for individuals under 21. • Nurse-midwife services.	• Title XIX of the Social Security Act requires that every state Medicaid Program offer certain basic services (U.S. Department Health and Human Services, September 1987): - Inpatient hospital services. - Outpatient hospital services. - Laboratory and x-ray services. - SNF services for individuals aged 21 or older. - Rural health clinic services. - Early and periodic screening, diagnosis, and treatment services for individuals under 21. - Nurse-midwife services.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Optional Services • Drugs • Eyeglasses • Private-duty nursing • Intermediate care facilities (ICFs) • Inpatient psychiatric care for the aged and persons under 21 • Physical therapy • Dental care • Occupational therapy • Speech pathology • Audiology	• States have the option of covering other services, such as: - Drugs. - Eyeglasses. - Private-duty nursing. - Intermediate care facilities (ICFs). - Inpatient psychiatric care for the aged and persons under 21. - Physical therapy. - Dental care. - Occupational therapy. - Speech pathology. - Audiology.
Note to Instructor: Optional group discussion of state's eligibility requirements and coverage services may be conducted at this point, if the instructor has prepared a summary (either as a handout or as an overhead series) of the state's approach.	Medicaid expenditures can consume 10-to-15% of state budgets; therefore many states are seeking to control the growth of the nursing home population and associated Medicaid expenditures (Senate Special Committee on Aging, 1987): • Most states now use a form of prospective reimbursement. • Other cost-containment initiatives include: - Limiting the number of Medicaid-licensed nursing home beds. - Instituting pre-admission screening programs. - Emphasizing home- and community-based care as alternatives to institutionalization.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Activity. Group Discussion (15 minutes): Discuss participants' experience with Medicaid in their state.	Questions for Discussion: • What are the priority problems with Medicaid as it impacts your agency? • What improvements can realistically be introduced?

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE (60 minutes)	FINANCING LONG-TERM CARE
5. Describe the parameters defining the need for long-term care coverage, as well as current policy and possible future initiatives.	Now, and for the foreseeable future, the provision and financing of long-term care is, and will be, one of the crucial health policy issues facing older Americans and their families, as well as Federal, state, and local governments, health care providers and advocates, and insurers.
Overhead: 5 Primary Reasons LTC is a Major Policy Issue • Unprecedented demographic change. • Increased life expectancy possibly adding more years of disability to life. • Other than Medicaid, little protection against costs of long-term health care. • Elderly cannot afford long-term care. • No legislation has been enacted to address this issue.	There are at least 5 reasons for the urgency of this issue (Senate Special Committee on Aging, February 29, 1988): • The elderly population, particularly the old-old with its high demand for long-term care services, has grown more rapidly than other age sectors for most of this century. • In the early part of the century, the majority of the population did not reach their mid-60s; now death before age 65 is the exception rather than the rule. - The irony of increased longevity is that not only have healthy years been added to life; but for some, it is possible that more unhealthy years also have been added. - The later years are marked by increasing liklihood of chronic illness and disability, with a parallel increase in demand for long-term care. • There is little protection against the costs of long-term health care. - Older Americans, who are chronically ill, are discovering that unless they are eligible for Medicaid (qualifying for it only after "spending-down" their financial resources on health care), their long-term health care costs are not covered. - A 1987 Brookings Institute study found that of the 2/3 of Medicare beneficiaries who own Medigap policies, only 3% have long-term care policies. - The grim reality is that many elderly are forced to spend all their income and assets on long-term care or transfer their assets to others in order to qualify for long-term care under Medicaid.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- The expense of long-term care quickly leaves the elderly, who cannot afford such care, in poverty.

- To date, no legislation has passed the Congress that would significantly address the long-term care issue.

  - The Catastrophic Care Coverage of 1988 may remedy shortfalls in acute (short-term) health care coverage, but it does not include provisions to provide comprehensive protection from the catastrophic costs of long-term care.

  - Private long-term care insurance also cannot be counted on to fully resolve this crisis.

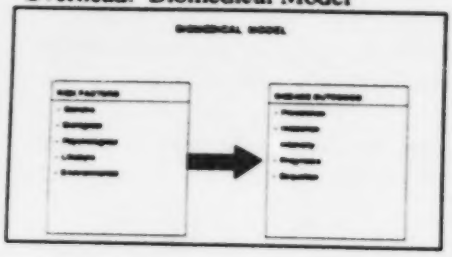
    -- According to a 1987 Brookings Institute study, moderately comprehensive private nursing home insurance may be affordable by, at most, 26-45% of the elderly population by 2018, and long-term care insurance will account for not more than 12% of total nursing home expenditures.

    -- Although an improvement on current coverage, this 12% would reduce Medicaid expenditures by only 2-5%.

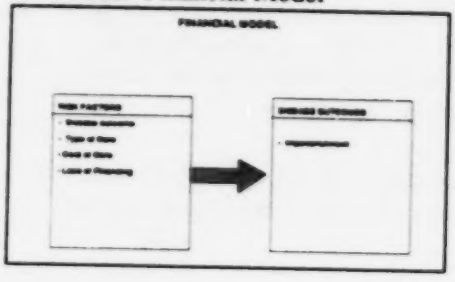
    -- In addition, while touted by some as a solution to the long-term care problem, other private sector approaches (such as home equity conversion, life-care communities, and social health maintenance organizations) protect only a small segment of those in need of long-term care services.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead: Biomedical Model



Overhead: Financial Model



The Financial Model of Health Risk

The traditional biomedical model emphasizes individual actions, such as changes to diet and lifestyle, to modify risk factors and reduce the likelihood of diseases.

In reality, the elderly confront 2 types of health risks (House Select Committee on Aging, 1985):

- Risk factors such as genetic, biological, and psychological makeup, as well as environmental and lifestyle factors contribute to disease factors -- this is one type of health risk, the biomedical.
- The second type of health risk isn't biomedical; it's financial.
  - This model reflects the risk of poverty associated with the onset of chronic diseases or disabling conditions.
  - The financial model underscores that:
    - -- The risk factor is the disease or disabling condition, itself.
    - -- The risk is financial devastation resulting from the need to rely on costly health and long-term services.
  - Since the elderly have such a high incidence of chronic illnesses requiring extended home or nursing care, they are at highest risk, not only physically, but also financially.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead: Biomedical Model -- Antecedent Risk Factors for Institutionalization

- Living alone.
- Advanced age.
- Cognitive impairment.
- Urinary incontinence.
- Reliance on ambulation aids.
- Assistance with ADLs.

- Looking at institutionalization, regardless of cause, as a disease outcome, the biomedical model is able to identify several antecedent risk factors, including:

  - Living alone.
  - Advanced age.
  - Cognitive impairment.
  - Urinary incontinence.
  - Reliance on ambulation aids.
  - Required assistance with activities, such as bathing, dressing, eating, food preparation, grocery shopping, and housekeeping.

- In addition, the model can identify some of the parameters of outcomes (House Select Committee on Aging, 1985):

Overhead: Prevalence Rate for Nursing Home Use, by Age

Rate	Age
1-2%	65-74
4-6%	75-84
22%	85+

  - Prevalence rates for use of nursing homes are estimated at:

    -- 1-2% for those aged 65-74.
    -- 4-6% for those aged 75-84.
    -- 22% for those aged 85+.

  - Further, 25% of all those 65 and over will enter a nursing home before their death; these individuals fall into 3 categories:

    -- Those who seek rehabilitation in a nursing home, and will be discharged within 3-6 months to their own home.

    -- Those who enter a nursing home for terminal care and die within 6-12 months.

    -- Those who remain in varying states of dependency for indefinite time periods in a nursing home.

The antecedent risk factors and the parameters of outcomes for the financial model have not been as clearly illuminated.

- At a March 1988 hearing of the Subcommittee on Health and Long-Term Care, the late Rep. Claude Pepper reported (Mann, 1988):
  - Nearly 1 million Americans will be forced into poverty trying to cover the cost of long-term illness during the year.
  - 1/2 million people suffer strokes each year.
  - Another 1/2 million have Parkinson's Disease.
  - 3 million have Alzheimer's Disease.
  - 5 million have cancer.
  - The average nursing home cost is now $24,000/year and can go as high as $60,000/year in some areas of the country.
  - The average cost of home health care is $15,000. (It should be noted that home health care is not necessarily a substitute for nursing home care; much of home-health care addresses acute care needs).
  - The median family income is $27,300.
- Not all of the people who suffer chronic debilitating and costly illnesses are elderly (for example, 10 million children have chronic health problems). A significant number are elderly despite the fact that more than 1/2 of those persons experiencing chronic physical or mental illness are under 65.
- Since the 1960s, the economic status of the elderly has risen and poverty has declined -- this does not mean that the economic problems of the elderly have been eliminated (Senate Special Committee on Aging, February 29, 1988):
  - Elderly persons are more likely than other adults to be poor or near-poor.
  - In 1986, 15.5% of those 65+ were near poor, as compared to 8.4% of those adults under 65.

- The elderly are a heterogeneous group -- factors such as race, age, family composition, and disability all impact personal resources:
  - -- For example, the risk of poverty increases with age.
  - -- The 85+ group is the most likely to need long-term care; it is also one of the poorest groups in the U.S.
  - -- In 1986, 18% of the 85+ group lived in poverty -- this is partially due to the liklihood that this cohort does not receive private pensions or VA benefits.
  - -- A large part of the improvement in income of the "new elderly" is due to better pensions and/or VA benefits related to having served in WWII.

- A collaborative study by researchers at Harvard Medical School (HMS) and Blue Cross/Blue Shield (BC/BS) of Massachusetts looked at the risk of impoverishment associated with Alzheimer's Disease, using 1984 fiscal data.
  - The HMS sample included more than 500 elderly over age 75, living in the community.
  - The BC/BS sample included nearly 400 non-institutionalized elderly, aged 66 and older.

- For the study purposes, the following guidelines were observed:
  - A single elderly person would be considered eligible for Medicaid only after their self-reported 1984 liquid assets had been spent down to $1,000 and only if their self-reported 1984 income was down to no more than $4,000 (a level well below national poverty guidelines).
  - For couples, joint liquid assets of no more than $3,000; income of no more than $5,000.
  - In Massachusetts, the estimated 1984 statewide private pay rate for a skilled nursing facility was $75/day ($27,000/year).
  - The approximate cost for caring for an Alzheimer's client, at home, in the advanced stages of disease, were estimated at $35/day ($13,000/year).

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- The study results were staggering and sobering in their implications.
  - In the HMS sample, about 46% ran the risk of spending down to impoverishment after only 13 weeks of nursing home care.
  - Only 25% of the HMS sample would avoid impoverishment in the first year following nursing home placement.
  - Among the BC/BS sample (who were slightly younger than HMS respondents), 64% living alone were at risk of poverty by the 13th week of institutionalization.
  - In a married household, if one spouse is institutionalized, both individuals run the joint risk of impoverishment:
    - -- Within 13 weeks of the institutionalization of one spouse, 25% of the HMS and 37% of the BC/BS sample households would become impoverished.
    - -- It's important to remember that in the case of married couples, once impoverishment occurs, the subsequent health care costs of the noninstitutionalized spouse are likely to become the financial responsibility of Medicaid.

Handout: Percent of Elderly Impoverished By Number of Weeks

  - While the risks associated with institutionalization were high, so are the financial risks associated with home care.
- The implications of the Massachusetts study may be far-reaching:
  - The risk of becoming financially destitute following institutionalization or after paying for home care reaches further into the higher elderly income levels than most people anticipate.
  - Chronic illness does not discriminate by income level -- the likelihood of impoverishment is extremely high if an elderly person needs extensive home care or is placed in a nursing home on a prolonged basis.

- In response to the question, "what should be done about the risk of health-related impoverishment," the obvious response is "reduce the risk!"
  - The issue is: how to accomplish such an objective.
    - -- In the traditional biomedical model, the onus is placed on the individual -- people are urged to alter their behavior and lifestyle to reduce the likelihood of disease.
    - -- In the model of financial risk, the individual has no real control -- it appears that political and administrative mechanisms are needed to protect individuals against the dire financial consequences of chronic disease.

<u>The Current Climate: Medicare and Medicaid</u>

Currently, there is no integrated long-term care coverage policy.

Medicare coverage focuses primarily on acute, rather than long-term services (Senate Special Committee on Aging, February 29, 1988):

- The impact of the Catastophic Coverage provisions has yet to be well documented; some effects should be felt due to:
  - Provisions for direct admission from the community to nursing homes without prior hospitalization.
  - Changes in deductibles.
  - More potentially covered days.
- Medicare does provide limited coverage for skilled nursing facility (SNF) care.
  - In FY 1986, Medicare benefit payments for SNF care were only $607 million, less than 2% of total public and private spending for nursing home care and less than 1% of total Medicare spending.

- Many believe that the Medicare SNF benefit has been the target of arbitrary denials by the various fiscal intermediaries (FI's) in recent years:

  -- According to the American Association of Retired Persons, the regional variation in denials of SNF claims ranges from 9.8% in the Denver region to 41.5% in the Boston region.

  -- Medicare denied 31.8% of all SNF claims in FY 1986, compared to 1.8% of all hospital claims and 6% of all home health claims.

- Furthermore, many of the elderly require intermediate or custodial care (not skilled nursing care), and these are not covered by Medicare

• Medicare also pays for limited amounts of community-based long-term care services, primarily through the home health benefit.

- Home health care has been one of the most rapidly expanding Medicare benefits; nevertheless, it represents a relatively small proportion (approximately 3.8%) of Medicare program outlays.

- Medicare beneficiaries aged 85+ are nearly 5 times more likely to receive home-care services than the 65-69 cohort.

Medicaid is the government program that primarily supports long-term care, particularly nursing home care.

The home health benefits that may be reimbursed under Medicaid include part-time nursing home, health aide, and medical equipment and supplies:

• At the state's option, physical therapy, occupational therapy, speech pathology, and audiology may be covered.

• States also may cover personal care services, private duty nursing, and case management.

• Prior to 1981, Federal regulations limited Medicaid reimbursable home care services to the traditional acute care model.

In Section 2176 of the Omnibus Budget Reconciliation Act of 1981, Congress authorized expansion of Medicaid beyond acute care to provide a broad range of home- and community-based long-term care services to individuals who otherwise would have no alternative other than to receive Medicaid-financed care in a hospital, skilled nursing facility, or intermediate care facility.

- The allowance for such expanded services is sanctioned under specific waivers; relatively few such waivers have been granted recently.

- These home- and community-based services must cost no more than institutional care in order to justify waiver approval.

- Prior to the implementation of the 2176 waiver program, Medicaid services available to chronically ill or disabled individuals living in the community were generally restricted to medical and medical-related services.

  - The waiver authority acknowledges that a wide variety of nonmedical services may also be needed in order to prevent or avoid institutionalization.

  - The services allowed under the waivers include long-term nursing or therapy for chronic conditions, case management, personal care, homemaker and chore services, adult day health care, and respite care.

  - Personal care comprises 40% of waiver expenditures for aged and disabled clients, followed by case management and homemaker services (which account for 15% each of expenditures).

  - The remainder of waiver expenditures for the aged and disabled provides for adult day care (5%), home health aide (4-5%), respite care (1%), and other nonspecified services.

- In 1987, 46 states had 180 approved waiver programs in operation; although most of these were not aimed at the elderly.
  - Despite the large number of these programs, waiver clients account for only 3% of the entire "at risk" population.
  - Five states account for 56% of all aged and disabled waiver recipients: Florida, California, Illinois, New York, and Oregon.

While the Medicaid Program is the predominant Federal program supporting long-term care services, a variety of social service programs provide community-based services that often have as their primary purpose the delay or prevention of institutionalization. Foremost among these programs are the Social Services Block Grant program and the Older Americans Act.

In many communities, these two programs represent an important source of services to the frail elderly, often filling gaps in services not met by either the Medicare or Medicaid programs.

<u>The Current Climate: Social Services Block Grants (Title XX of the Social Security Act) and the Older Americans Act</u>

Title XX, added to the Social Security Act in 1975, consolidated various Federal social services programs.

- In 1981, Congress created the Social Services Block Grant (SSBG) program that not only eliminated many Title XX restrictions, but also increased states' authority to determine the service population, as well as the services to be offered.
  - For example, SSBG can be used to pay personal caregivers, including family members.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: SSBG • To provide home- and community-based care that prevents or reduces inappropriate institutionalization. • To make referrals and secure admissions for institutional care where appropriate.	• The SSBG is intended to prevent or reduce inappropriate institutional care by providing for community-based care, while making referrals or securing admission for institutional care when other forms of care are inappropriate. • Through the SSBG, all states provide a range of home- and community-based long-term care services not just for the elderly, but also for children and disabled individuals. • The SSBG is the central social services program supported by the Federal government; nevertheless, its ability to meet the needs of the long-term care population is limited. • Since the program must support such diverse populations as children, the disabled, and the elderly, it is influenced by competing demands and can only provide limited care to the older population. • The 1981 law eliminated state reporting requirements, making it difficult to track services offered for the elderly.
Overhead: SSBG FY 1986 Planned Services for the Elderly • Home care — All states • Adult day care — 31 states • Adult foster care — 18 states	• According to a Department of Health and Human Services analyses of states pre-expenditure reports for FY 1986 (Senate Special Committee on Aging, 1987): - Home care services, including homemaker, chore, and home management services, were planned by all states. - Adult day care was to be offered in 31 states. - Adult foster care was to be available in 18 states. • In 1987, AARP conducted a survey designed to determine the amount of SSBG funds in use for services to the elderly (Senate Special Committee on Aging, 1987): - The survey showed that 47 states allocate some portion of their SSBG funds to provide services for the elderly.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- 44 states submitted estimates on the percentages of services allocated for the elderly.

- These estimates ranged from less than 17% up to 50%, with an average of 18%.

- The survey portrayed the most frequently provided services as:

  -- Home-based.
  -- Adult protective.
  -- Adult day care.
  -- Transportation.
  -- Nutrition services.

The Older Americans Act of 1965, together with its subsequent amendments, is the most comprehensive legislation directed solely to the needs of the elderly.

- It provides for a network of direct services and resources for health professionals working with the elderly.

Overhead: OAA

- Income
- Emotional and physical well being
- Housing
- Employment
- Social services
- Civic, cultural, and recreational opportunities.

- The act carries a broad mandate to improve the lives of older persons with respect to:

  - An adequate income in retirement.
  - The best possible physical and mental health.
  - Suitable and affordable housing.
  - Full restorative services for those requiring institutional care.
  - An opportunity for employment, regardless of age.
  - Retirement in health, honor, and dignity.
    Meaningful activity.
  - Efficient community services, including access to low-cost transportation.
  - The freedom to plan and manage independent lives.
  - A comprehensive set of community-based long-term care services.

- Despite this broad mission statement, resources are not available to accomplish all of these objectives.

- History and development:

  - During the Kennedy Administration in the early 1960s, the White House Conference on Aging recommended legislation to help states initiate and/or expand research, demonstration, and training projects on aging.

  - President Johnson signed the Older Americans Act of 1965 into law, thereby appropriating $6.25 million the first year for specific projects to assist elderly Americans.

  - The Older Americans Act has grown from a small grants program in 1966 to a program that now supports:

    -- 57 state units on aging.
    -- 670 area agencies on aging.
    -- 8,600 service providers.
    -- 13,000 congregate nutrition sites.
    -- 54,000 community service jobs.
    -- 83 Indian tribal organizations.

- Title III of the Act authorizes formula grants to states to foster the development of a comprehensive and coordinated service system in order to (Senate Special Committee on Aging, 1987):

  - Secure and maintain maximum independence and dignity in a home environment for older persons capable of self care.

  - Remove individual and social barriers to personal and economic independence for the elderly.

  - Provide a continuum of care for the vulnerable elderly.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead: Title III

- Congregate meals
- Home-delivered nutrition services
- Access services:
  - Transportation
  - Outreach
  - Information & referral
- Legal assistance
- In-home services
  - Homemaker
  - Home health aide
  - Personal care
  - Chore, escort, shopping services
  - Visiting and telephone reassurance
- Community-based long-term care services
  - Case management
  - Adult day care
  - Respite care

- Under Title III, grants are made to state agencies on aging, which in turn award funds to area agencies on aging to plan, coordinate, and advocate for a comprehensive service system for older persons.

- Title III supports a wide range of supportive services, as well as congregate and home-delivered nutrition services. Supportive services, given priority by Congress, include:
  - Access services:
    - -- Transportation.
    - -- Outreach.
    - -- Information and referral.
  - Legal assistance.
  - In-home services:
    - -- Homemaker.
    - -- Home health aide.
    - -- Personal care.
    - -- Chore, escort, and shopping services.
    - -- Visiting and telephone reassurance.
  - Community-based long-term care services:
    - -- Case management.
    - -- Adult day care.
    - -- Respite care.

<u>The Future of Long-Term Care Financing</u>

It took approximately 5 years for the proposal to protect seniors from the catastrophic costs of acute care to be enacted into law. The larger issue of long-term care will not be resolved immediately, but there is some movement in that direction.

- Prior to the catastrophic bill, many members of Congress were unaware of the difference between acute and long-term care.
  - Not only did they discover they were only making a dent in the heavy costs borne by the elderly, they also began to recognize that this is an issue on which the public favors action.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- Studies performed for AARP and the Villers Foundation, organizations strongly in favor of LTC coverage, found (Bailey and Fingerhut, 1988):

  -- Most people are against higher spending and taxes for most things, but *not for long-term care.*

  -- 87% believe that because of the strains it puts on families, the absence of a long-term care program is a "national family crisis."

  -- 86% want the Federal government to "act" on this issue.

  -- 68% are willing to pay higher taxes to support an adequate long-term care program.

  -- 79% say that a presidential candidate proposing a comprehensive long-term care program would show "the kind of leadership and vision I would like."

  -- 79% reject the notion that such a candidate should be seen as a "big spender."

  -- 53% say they would be inclined to vote against a presidential candidate who favored handling long-term care via private insurance instead of government action.

Handout: Federal LTC Legislation 1988

The chairmen of the House and Senate subcommittees dealing with long-term care, as well as several other members of Congress, have introduced long-term care proposals.

- The future direction of long-term care policy in the U.S. remains uncertain.
- Several public- and private-sector options are being studied.

In 1980, the Department of Health and Human Services initiated the National Long-Term Care Channeling Demonstration.

- This large scale project was intended to be the definitive study on long-term care case management cost-effectiveness.

- The final results, released in May 1986, did not support the argument for case-managed community-based services solely on the basis that they offer a substitute for institutional care (Kemper, Brown, et al, 1988).

- In addition, the study findings did not show a reduction in the total costs of long-term care attributed to channeling.

- The increased costs of case management, together with the expanded community services that were offered by the demonstration, were not offset by reduced nursing home costs.

- However, a range of unmet needs were identified as a result of the demonstration projects -- these findings supported the view of service providers that:

  - Housekeeping and personal care assistance represent the major service needs of functionally impaired adults.

  - This area is still inadequately addressed by existing programs.

In addition to channeling, research efforts have been focused on financing mechanisms, such as capitation.

IV. Overheads

Major Trends

- Rising cost of medical care.
- Greying of America.

Health Expenditures

- 1965: $41.7 B
- 1984: $387.4 B
- 1987: $443 B
- 1990: $755.6 B projected

Federal Expenditures

- 7% of GNP for pension programs.
- 3% of GNP (1986) for health care.
- Health care projections of 7% of GNP by 2030.

Rising Costs

- Advanced technology and health services.
- Increased use of medical services.

The Greying of America

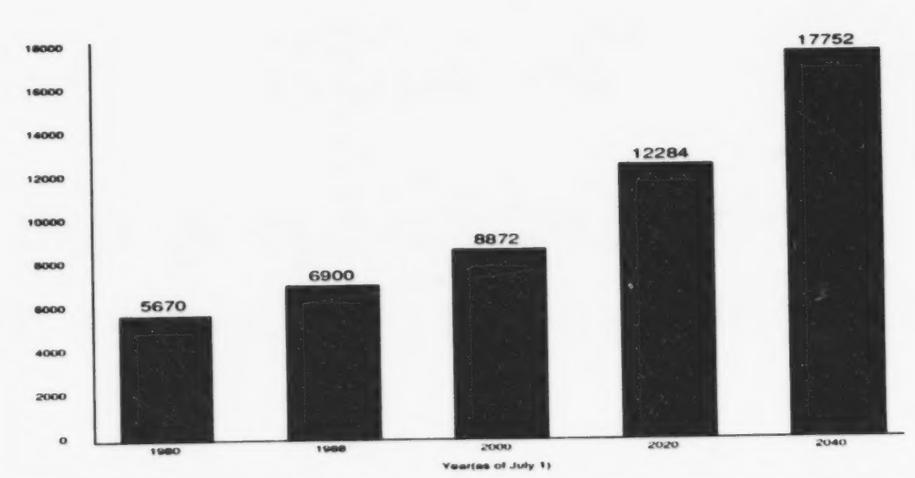
Year	% of U.S. Population	Number
• 1960:	9%	16.7 million
• 1990:	12.7%	31.5 million
• 2030:	20%	64.6 million

Prevalence of Selected Impairments (per 1,000 persons)

	All Ages	65+
Visual Impairments	40.4	136.6
Hearing Impairments	82.9	283.6
Arthritis	12.1	464.7
Orthopedic Impairments	81.8	128.2
Heart Conditions	76.4	277.0
Hypertensive Disease	113.4	378.6
Arteriosclerosis	15.1	97.0
Emphysema	9.3	42.9

Source: House Select Committee on Aging, July 1985.

Number of Persons Needing Long-Term Care 1980-2040*

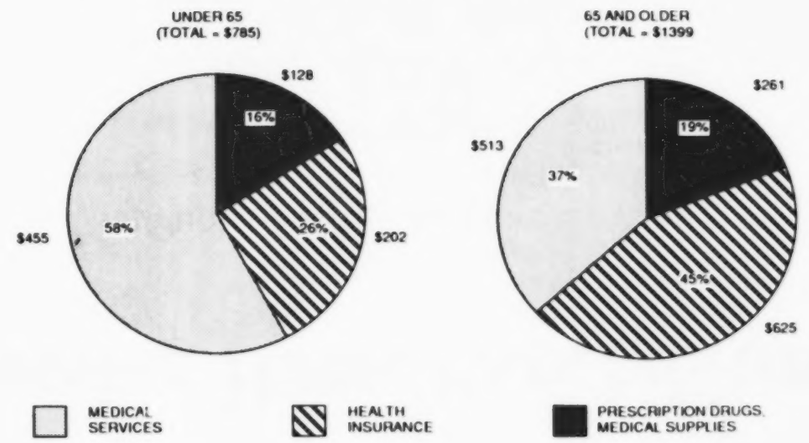


* Rank, Liu and Kenneth Manton, Current Estimates and Projections, 1987
Source: Senate Special Committee on Aging, 1988

Out-of Pocket Health Expenses as a % of Personal Income

- 1977-1988: 12%
- 1985: 15+%

Health Expenditures by Type for Younger and Older Urban Households: 1984



NOTE: Percentages may not equal 100 due to rounding

Source: U.S. Bureau of Labor Statistics, *Consumer Expenditure Survey*, 1984 *Interview Survey*, Bulletin 2267, Washington, U.S. Department of Labor, August 1986

Nursing Home Expenditures

- Public Expenditures:

  - 1965 $700M
  - 1981 $13.5B

- Public and Private Expenditures:

  - 1981 $24B
  - 1987 $40.6B

Entitlement

- 65+ and eligible for Social Security or Railroad Retirement benefits.

- Under 65, but entitled to Social Security disability for 24 months.

- End-stage renal disease.

Medicare : Part A

- Part A -- hospitalization insurance (HI); no premium for those who are eligible.

- Covers:
  - Inpatient hospital care
  - Inpatient care in a skilled nursing facility (SNF)
  - Home health care
  - Hospice care.

Medicare Part B

- Part B -- optional insurance for medical services.

- Covers:
  - Doctors' services
  - Outpatient hospital care
  - Diagnostic tests
  - Durable medical equipment
  - Ambulance service
  - Some other health services and supplies that are not covered by Part A.

Some Services Not Covered

- Routine physical examinations/tests.
- Custodial care.
- Eyeglasses and hearing aids, as well as examination for prescription or fitting of such devices.
- General dental work.
- Routine foot care.
- Drugs/medicines.
- Meals; homemaker services.
- Most care outside the U.S.

Intermediaries & Carriers

- Intermediaries make coverage decisions on services in hospitals, SNFs, home health agencies, and hospices.

- Carriers handle claims for doctors and other suppliers services under Part B.

PROs

Review hospital care of Medicare patients to ensure that it is:

- Reasonable & necessary
- Provided in the right setting
- Meeting quality standards.

Providers

- Hospital.
- Skilled nursing facilities.
- Home health agency.
- Comprehensive outpatient rehabilitation facilities.

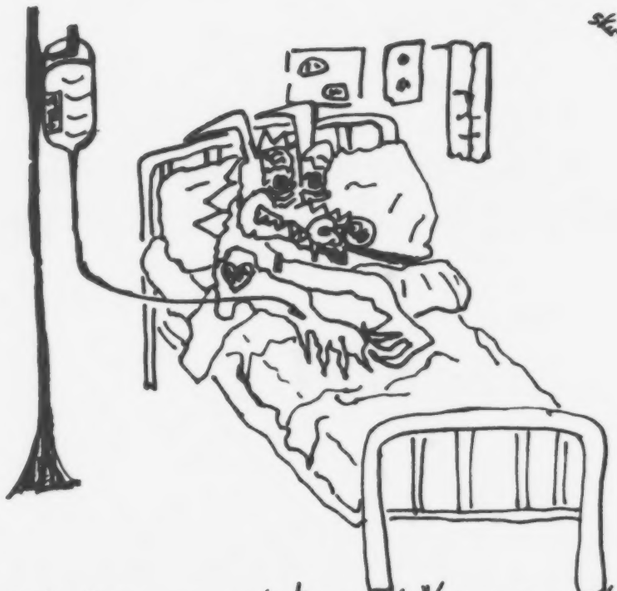
Suppliers

- Ambulatory surgical centers.
- Independent physical therapists.
- Independent occupational therapists.
- Clinical laboratories.
- Portable X-ray suppliers.
- Dialysis facilities.
- Rural health clinics.

PPS

Hospital care (Part A) is paid fixed amounts under the Prospective Payment System (PPS.)

Medicare Cartoon



"My fever's up and I'm still dragon" -- but
I'm goin' home cuz my Medicare coverage's saggin'..."

Charges

- Customary
  - The charge most frequently made for each item/service by that doctor/supplier.

- Prevailing
  - Result of all customary charges for an item/service in a given locale.

- Actual
  - The amount billed.

The Advantages of the Private Health Plan Option From the Beneficiary's Perspective

HMOs/CMPs:

- Cover most health care based on fixed premium and low copayment.
- May offer services not generally covered by Medicare, at no additional cost.
- May reduce paperwork claims burden.

Summary of Part A Benefits

- Hospital Benefit (Part A): Effective January 1, 1989, beneficiary pays an annual deductible of $564 (estimated for 1989) and Medicare pays the balance regardless of the number of days of hospitalization or the costs.

- Skilled Nursing Facility Care: Effective January 1, 1989, 150 days of care per year with 20% copayment for first 8 days.

- Hospice Care: Effective January 1, 1989, more than 210 days of care if recertified as terminally ill.

- Home Health Care: Coverage extended as of January 1, 1990, to provide for intermittent care up to 6 days a week; daily care for up to 38 consecutive days.

Summary: Part B Benefits

- Medical Benefits (Part B): Beginning January 1, 1990, beneficiary pays $75 deductible and 20% co-payment up to $1,370. Medicare then pays all other allowable charges for the rest of the year.

- Drug Benefit: Certain drugs covered in 1990. Most prescription drugs, insulin covered in 1991 with Medicare paying 50% of allowable charges over $600. In 1992, Medicare pays 60% of allowable charges over $652 (estimated) deductible. If finances permit, Medicare pays 80% of allowable charges over yet-to-be set deductible in 1993.

Medigap Insurance

Medigap insurance is typically designed to supplement coverage of acute-care costs, not long-term costs.

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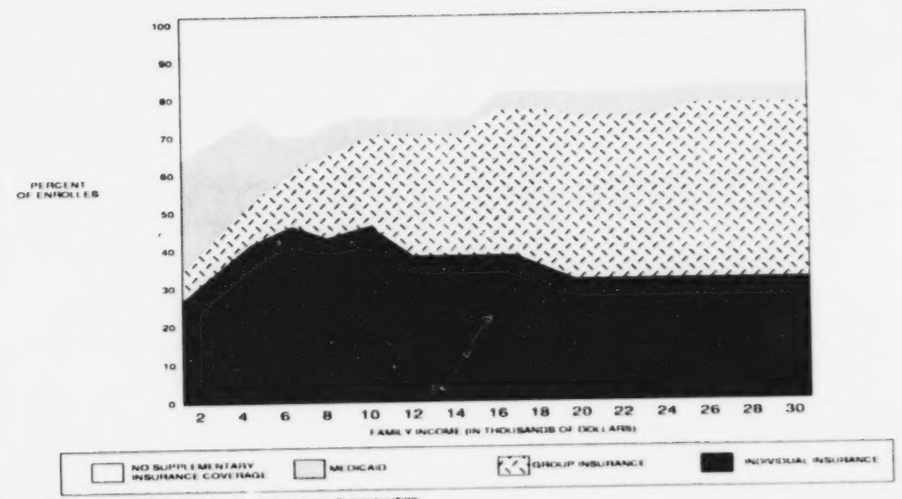
Supplementary Insurance Coverage by Elderly Medicare Enrollees: 1988.



* Congressional Budget Office. Tabulations of 1986 Survey of Income and Program Participation (SIPP).
Note: People covered under both a group and an individual plan are likely to have been classified above as covered by group insurance.
Source: Senate Special Committee on Aging, 1988

LTC Insurance

- Private financing mechanism.
- Intended to cover:
  - Chronic illness.
  - Care over long time period.

LTC Facilities

- Skilled
- Intermediate
- Custodial

Skilled Care

Care must be prescribed by a doctor, staffed by a skilled nurse, and be available for 24 hours a day. These facilities are licensed by the state, and daily medical records are kept on each patient.

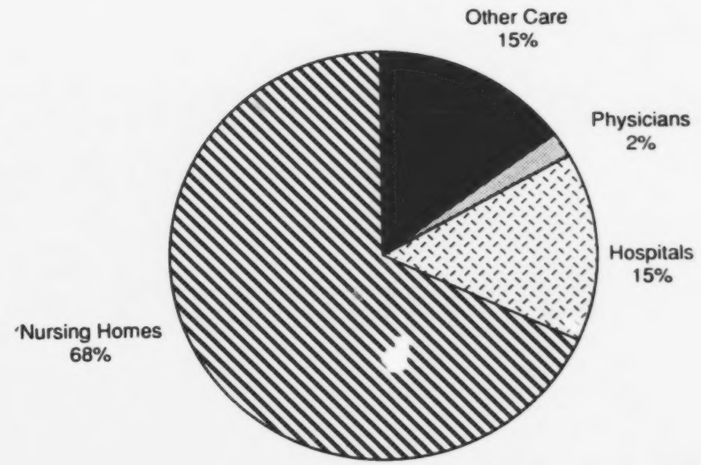
Intermediate Care

- Level of care is less than in SNF.
- Health-related care not requiring hospital or skilled nursing services.

Custodial Care

- Provides help with ADLs.
- Care by individuals without professional skills.

Where The Medicaid Dollar for The Elderly Goes 1986*



* Health Care Financing Adminstration, Office of the Actuary. Unpublished data, July 1987

Source: Senate Special Committee on Aging, 1988

Categorically Needy

- Recipients of Aid to Families with Dependent Children (AFDC).

- Recipients of Supplemental Security Income (SSI).

Medically Needy

Income and resources cover daily living expenses, but are not sufficient to cover medical care.

Required Service Offerings

- Inpatient hospital services.
- Outpatient hospital services
- Laboratory and x-ray services.
- SNF services for individuals aged 21 or older.
- Rural health clinic services.
- Early and periodic screening, diagnosis, and treatment services for individuals under 21.
- Nurse-midwife services.

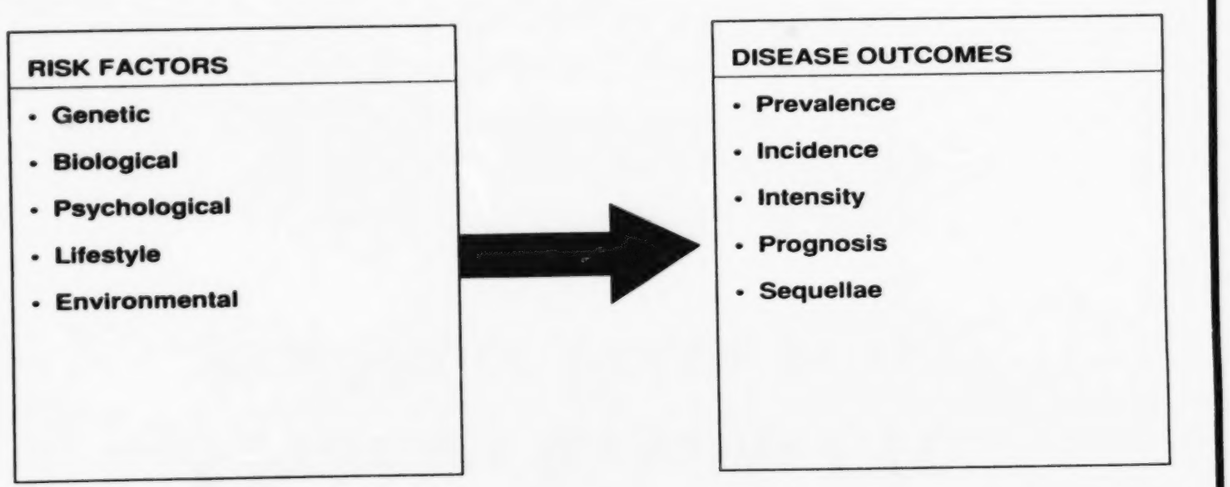
Optional Services

- Drugs
- Eyeglasses
- Private-duty nursing
- Intermediate care facilities (ICFs)
- Inpatient psychiatric care for the aged and persons under 21
- Physical therapy
- Dental care
- Occupational therapy
- Speech pathology
- Audiology

5 Primary Reasons LTC is a Major Policy Issue

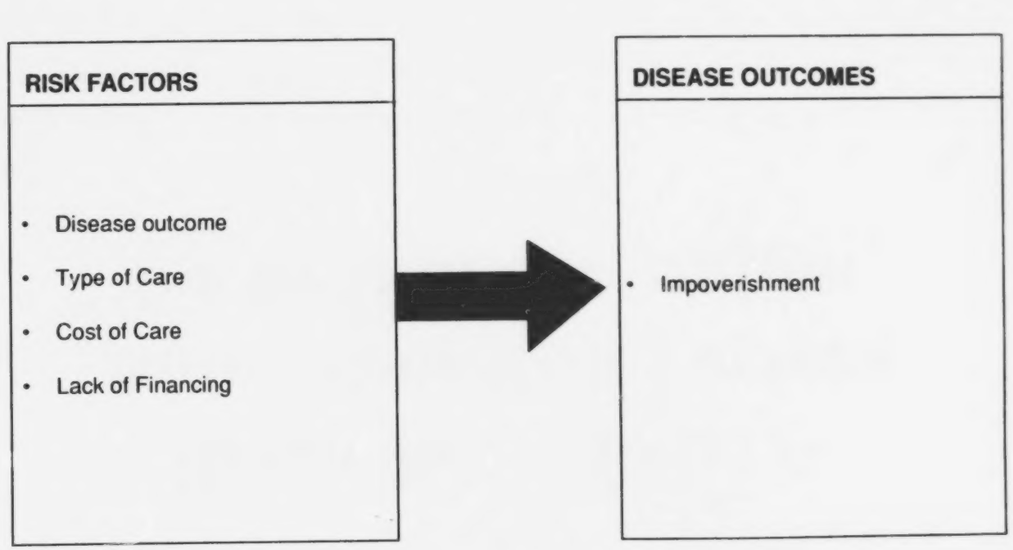
- Unprecedented demographic change.
- Increased life expectancy possibly adding more years of disability to life.
- Other than Medicaid, little protection against costs of long-term health care.
- Elderly cannot afford long-term care.
- No legislation has been enacted to address this issue.

Biomedical Model



Source: House Select Committee on Aging, 1985

Financial Model



Source: House Select Committee on Aging, 1985

Biomedical Model -- Antecedent Risk Factors for Institutionalization

- Living alone.
- Advanced age.
- Cognitive impairment.
- Urinary incontinence.
- Reliance on ambulation aids.
- Assistance with ADLs.

Prevalence Rate for Nursing Home Use by Age

Rate	Age
1-2%	65-74
4-6%	75-84
22%	85+

SSBG

- To provide home- and community-based care that prevents or reduces inappropriate institutionalization.

- To make referrals and secure admissions for institutional care where appropriate.

SSBG FY 1986 Planned Services for the Elderly

• Home care	All states
• Adult day care	31 states
• Adult foster care	18 states

OAA

- Income
- Emotional and physical well being
- Housing
- Employment
- Social services
- Civic, cultural, and recreational opportunities.

Title III

- Congregate meals
- Home-delivered nutrition services
- Access services:
  - Transportation
  - Outreach
  - Information & referral
- Legal assistance

Title III (continued)

- In-home services

  - Homemaker
  - Home health aide
  - Personal care
  - Chore, escort, shopping
  - Visiting and telephone
  - Reassurance

- Community based

  - Case management
  - Adult day care
  - Respite care

V. Handouts

NATIONAL HEALTH EXPENDITURES IN 1987, BY TYPE OF EXPENDITURES AND SOURCE OF FUNDS

		Private					Government		
			Consumer						
Expenditure Category	Total All Sources	All Private Funds	Total	Out of Pocket	Private Insurance	Other	Total	Federal	State and Local
National health expenditures	$500.3	$293.0	$280.8	$123.0	$157.8	$12.2	$207.3	$144.7	$62.7
Health services and supplies	483.2	288.7	280.8	123.0	157.8	5.9	196.5	136.3	60.2
Personal health care	442.6	267.3	262.1	123.0	139.1	5.3	175.3	131.2	44.1
Hospital care	194.7	92.6	90.4	18.5	71.9	2.2	102.2	80.0	22.2
Physicians' services	102.7	70.9	70.9	26.3	44.6	0.1	31.8	25.7	6.1
Dentists' services	32.8	32.2	32.2	20.0	12.1		0.7	0.3	0.3
Other professional services	16.2	10.8	10.7	6.4	4.3	0.1	5.4	3.6	1.8
Nondurable medical products	34.0	30.2	30.2	25.5	4.7		3.9	1.9	2.0
Durable medical products	9.5	7.3	7.3	6.3	1.1		2.1	1.9	0.2
Nursing home care	40.6	20.6	20.4	20.0	0.4	0.3	19.9	11.1	8.9
Other personal health care	12.0	2.6				2.6	9.4	6.7	2.7
Program administration and net costs of private health insurance	25.9	19.4				0.7	6.6	3.5	3.1
Government public health activities	14.7		18.7		18.7		14.7	1.6	13.1
Research and capital outlay	17.1	6.3				6.3	10.8	8.4	2.4
Research	8.8	0.6				0.6	8.2	7.4	0.8
Construction	8.3	5.7				5.7	2.6	1.0	1.6

Notes: Research and development expenditures of drug companies and other manufacturers and providers of medical equipement and supplies are excluded from noncommercial research, being implicitly included in the value of the good or service being produced. "Other Private Funds" include spending by philanthropy, industrial inplant health services, and privately financed construction.

Source: Health Care Financing Administration, Office of the Actuary: Data from the Office of National Cost Estimates. October, 1988

Handout

SOURCES OF FUNDS FOR PERSONAL HEALTH CARE IN 1987

Source of Funds	Total Health Personal Care	Components							
		Hospital Care	Physicians' Servides	Dentists' Services	Other Professional Services	Non-Durable Medical Supplies	Durable Medical Equipement	Nursing Home Care	Other Personal Care
	AMount in Billions								
Total Personal Health Care	$442.6	$194.7	$102.7	$32.3	$16.2	$34.0	$9.5	$40.6	$12.0
Direct Patient Payments	123.0	18.5	26.3	20.0	6.4	25.5	6.3	20.0	-
Third Parties	319.6	176.2	76.4	12.8	9.8	8.6	3.2	20.6	12.0
Private Health Insurance	139.1	71.9	44.6	12.1	4.3	4.7	1.1	0.4	-
Other Private	6.3	2.2	0.1	-	0.1	-	-	0.3	2.6
Government	175.3	102.2	31.8	0.7	5.4	3.9	2.1	19.9	9.4
Federal	131.2	80.0	25.7	0.3	3.6	1.9	1.9	11.1	6.7
Medicare	81.2	63.3	22.3	-	2.0	-	1.8	0.6	1.3
Medicaid	26.8	9.7	2.4	0.3	1.5	1.8	-	9.6	1.4
Other Programs	23.2	17.0	1.0	0.0	0.1	0.1	0.1	0.9	4.0
State and local	44.1	22.2	6.1	0.3	1.8	2.0	0.2	8.9	2.7
Medicaid	22.6	8.1	2.0	0.3	1.5	1.6	-	8.2	1.0
Other Programs	21.5	14.1	4.1	0.1	0.3	0.4	0.2	0.6	1.7
Exhibit: Total Medicaid	49.4	17.8	4.4	0.6	3.0	3.4	-	17.8	2.4
	Percentage Distribution								
Total Personal Health Care	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Direct Patient Payments	27.8	9.5	25.6	61.0	39.7	74.8	66.3	49.3	-
Third Parties	72.2	90.5	74.4	39.0	60.3	25.2	33.7	50.7	100.0
Private Health Insurance	31.4	36.9	43.4	37.0	26.5	13.8	11.3	0.9	-
Other Private	1.2	1.1	0.1	-	0.7	-	-	0.7	22.0
Government	39.6	52.5	30.9	2.0	33.1	11.4	22.3	49.1	78.0
Federal	29.6	41.1	25.1	1.1	22.2	5.6	20.3	27.3	55.6
Medicare	18.4	27.4	21.7	-	12.2	-	18.8	1.4	11.1
Medicaid	6.1	5.0	2.4	0.9	9.5	5.4	-	23.6	11.6
Other Programs	6.2	8.7	1.0	0.1	0.4	0.2	1.5	2.2	33.0
State and Local	10.0	11.4	6.9	1.0	10.9	5.8	2.1	21.8	22.4
Medicaid	5.1	4.1	2.0	0.8	9.0	4.6	ERR	20.6	8.5
Other Programs	4.9	7.3	3.9	0.2	2.0	1.2	2.1	1.6	13.9
Exhibit: Total Medicaid	11.2	9.1	4.3	1.7	18.5	9.9	-	43.9	20.1

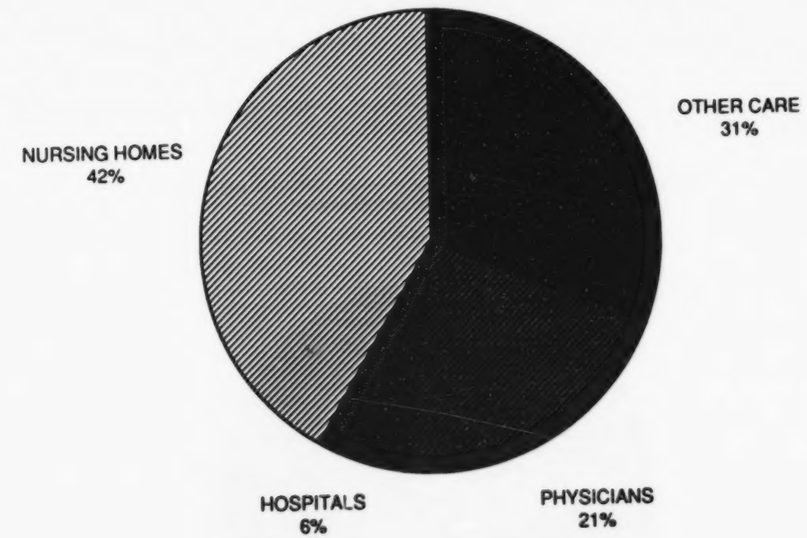
Note: 0.0 denotes less than $50 million.

Source: Health Care Financing Administration, Office of the Actuary: Office of National Cost Estimates. October, 1988

OUT-OF-POCKET COSTS

Even with the substantial contribution of public funds, the elderly bear considerable financial burden for health care out of their own pockets. Direct out-of-pocket health costs for the elderly averaged 15 percent of their income in 1984 -- the same as before Medicare and Medicaid were enacted. Direct out-of-pocket health care expenses for the elderly average $1,059 per person in 1984. This excludes premium payments for Medicare Part B and private health insurance. The majority of these expenses are for nursing home care, physician visits and services, and health aids not covered by Medicare, Medicaid, or private insurance (Chart 1).

CHART 1
WHERE THE OUT-OF-POCKET HEALTH CARE DOLLAR FOR THE ELDERLY GOES: 1984*



* Waldo, Daniel R. and Helen C. Lazenby. "Demographic Characteristics and Health Care Use and Expenditures by the Aged in the United States: 1977-1984." *Health Care Financing Review* Vol.6, No. 1 (Fall 1984)

Source: Senate Special Committee on Aging, 1988.

TABLE 1
PER CAPITA PERSONAL HEALTH CARE EXPENDITURES FOR PEOPLE 65 YEARS OF AGE OR OVER, BY SOURCE AND TYPE OF SERVICE: 1984*

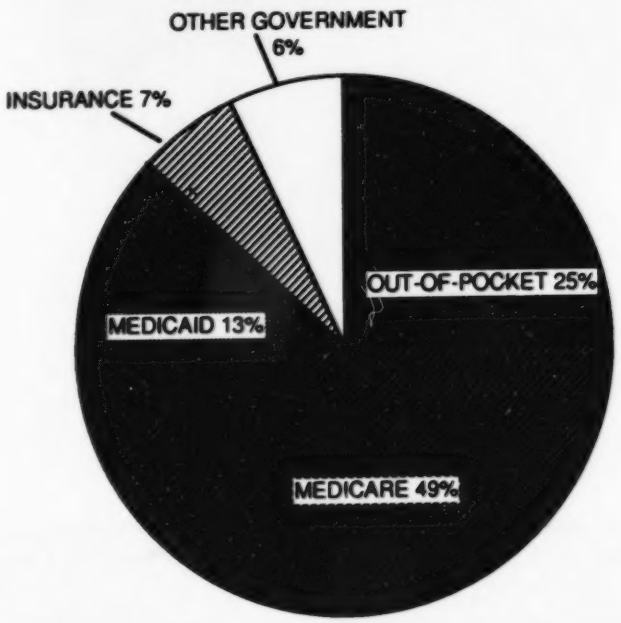
Source of funds	Type of service				
	Total Care	Hospital	Physician	Nursing Home	Other Care
Total per capita	$4,202	$1,900	$868	$880	$554
Private	1,379	216	344	457	362
Consumer	1,363	209	344	451	359
Out-of-pocket**	1,059	59	227	441	332
Insurance	304	150	117	10	27
Other private	16	7	1	6	3
Government	2,823	1,684	524	423	192
Medicare	2,051	1,420	502	19	110
Medicaid	536	91	16	365	63
Other government	236	172	6	39	19

* Waldo, Daniel and Helen C. Lazenby. "Demographic Characteristics and Health Care Use and Expenditures by the Aged in the United States: 1977-1984." *Health Care Financing Review* Vol.6, No. 1 (Fall 1984)

** Out-of-pocket funds exclude premium payments for Medicare Part B and private health insurance.

Private sources such as employer-paid insurance are the major source of health care payments for persons under age 65. However, public funds are the major source for 65-plus persons (chart 2).

Chart 2
PERSONAL HEALTH CARE EXPENDITURES FOR THE ELDERLY BY SOURCE OF PAYMENT: 1984*

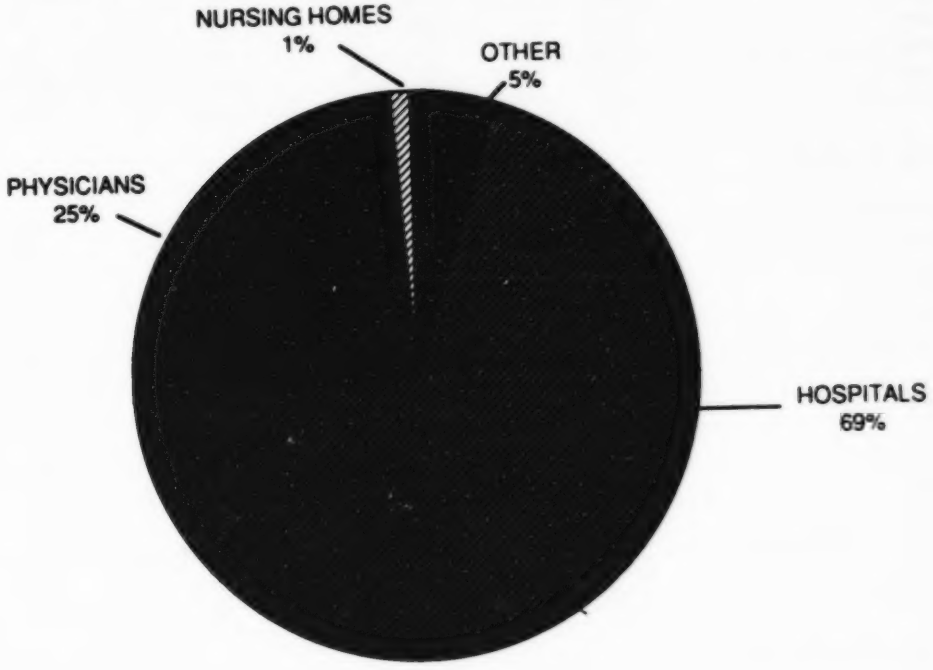


* Waldo, Daniel and Helen C. Lazenby. "Demographic Characteristics and Health Care Use and Expenditures by the Aged in the United States: 1977-1984." *Health Care Financing Review* Vol.6, No. 1 (Fall 1984)
Source: Senate Special Committee on Aging, 1988

MEDICARE EXPENDITURES

In 1984, Medicare covered 49 percent of all personal health care expenditures for the elderly. Medicare's role primarily involves financing acute care services. Costs for hospitals, which account for over 69 percent of all the dollars Medicare spends for health care, are fueling Medicare's growth (chart 3). Seventy-five percent of the cost of hospital services and 58 percent of the cost of physicians' services were paid by the program in 1984. Medicare spending for home health care has grown dramatically over the past two decades -- from $60 million in fiscal year 1968 to $2.3 billion in 1985 (3.3 percent of benefit payments).

CHART 3
WHERE THE THE MEDICARE DOLLAR FOR THE ELDERLY GOES: 1984*



* Waldo, Dainel R. and Helen C. Lazenby. "Demographic Characteristics and Health Care Use and Expenditures by the Aged in the United States: 1977-1984." *Health Care Financing Review*, Vol.6, No. 1 (Fall 1984)

Source: Senate Special Committee on Aging, 1988.

Table 2
Per Capita Personal Health Care Expenditures for People 65 Years of Age or Over, by Source of Funds, Age, and Type of Service: 1987

Personal health care	Total	Private	Medicare	Medicaid	Other
65 years or over	$5,360	$2,004	$2,391	$645	$321
65-69 years	3,728	1,430	1,849	245	204
70-74 years	4,424	1,564	2,234	357	268
75-79 years	5,455	1,843	2,685	569	358
80-84 years	6,717	2,333	3,023	908	453
85 years or over	9,178	3,631	3,215	1,742	591
Hospital care					
65 years or over	2,248	333	1,566	110	239
65-69 years	1,682	312	1,144	67	158
70-74 years	2,062	327	1,431	93	212
75-79 years	2,536	341	1,786	127	283
80-84 years	2,935	355	2,070	161	348
85 years or over	3,231	376	2,246	198	411
Physicians' services					
65 years or over	1,107	393	671	17	26
65-69 years	974	380	558	14	22
70-74 years	1,086	389	655	17	25
75-79 years	1,191	398	745	19	29
80-84 years	1,246	407	789	20	31
85 years or over	1,262	420	792	20	31
Nursing home care					
65 years or over	1,085	634	19	395	38
65-69 years	165	94	5	60	6
70-74 years	360	205	11	131	13
75-79 years	802	461	22	292	28
80-84 years	1,603	927	37	584	56
85 years or over	3,728	2,191	56	1,361	131
Other personal health care					
65 years or over	920	644	135	123	18
65-69 years	907	644	142	103	18
70-74 years	916	644	137	117	18
75-79 years	925	644	133	130	18
80-84 years	934	644	128	144	18
85 years or over	947	645	121	164	18

Source: Waldo, Sonnefeld, et al, 1989

Handout

Medicare Contact Sheet for Quick Reference

	Phone Numbers
Social Security Administration Local Office	_____
Intermediary	_____
Carrier	_____
PRO	_____
Federal Toll Free Medicare	1-800-888-1998

MEDICARE COVERAGE

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
Medicare Part A	Hospital Benefits	• Beginning January 1, 1989, unlimited hospitalization for approved care after beneficiary pays a single annual deductible estimated at $560 in 1989. • Medicare pays for hospital care meeting four conditions: - A doctor prescribes inpatient hospital care for treatment of illness or injury - The care can only be provided in a hospital - The hospital participates in, and is approved by, Medicare - The Utilization Review Committee of the hospital or a Peer Review Organization does not disapprove the stay • Once those conditions and the deductible have been met, Medicare pays 100 percent of the approved charges for care, regardless of the costs, length of stay, or number of hospital admissions in any one year. - There are no more "benefit periods", coinsurance payments, or "reserve days" for hospital care.	Medicare hospital insurance can pay for these services for hospital inpatients: • A semiprivate room (2 to 4 beds in a room) • All meals, including special diets • Regular nursing services • Costs of special care units, such as intensive care unit, coronary care unit, etc. • Drugs furnished by the hospital during stay • Blood transfusions furnished by the hospital during stay (see Coverage of Blood under Hospital Insurance) • Laboratory tests included in hospital bill • X-rays and other radiology services, including radiation therapy, billed by the hospital • Medical supplies, such as casts, surgical dressings, and splints • Use of appliances, such as a wheelchair • Operating and recovery room costs, including hospital costs for anesthesia services • Rehabilitation services, such as physical therapy, occupational therapy, and speech pathology services.	Medicare hospital insurance cannot pay for these services: • Personal convenience items that beneficiary requests, such as a telephone or television in room. • Private duty nurses • Any extra charges for a private room, unless it is determined to be medically necessary

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
Medicare Part A	A. Coverage of Blood under Hospital Insurance	• Medicare hospital insurance can help pay for blood (whole blood or units of packed red blood cells), blood components, and the costs associated with blood processing and administration. • Some hospitals or skilled nursing facilities charge a nonreplacement fee for the first three pints or units of blood. The beneficiary has the option of paying the fee or arranging to have the blood replaced. - The beneficiary may replace the blood personally or through arrangement with a blood assurance plan. - A beneficiary cannot be charged for blood that has been replaced.	• All blood costs, except for first three pints or units of blood/blood products.	• Nonreplacement fees charged for first three pints or units of blood/blood products.
Medicare Part A	B. Care in a Psychiatric Hospital	• Medicare hospital insurance covers no more than 190 days of care in a participating psychiatric hospital in a beneficiary's lifetime.	• 190 days maximum lifetime coverage	

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
Medicare Part A	C. Care in a Foreign Hospital	• Hospitalization outside the U.S. is generally not covered. • Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands are considered part of the U.S. for coverage purposes. • Care in qualified Canadian or Mexican hospitals can be covered in three situations: - The beneficiary is in the U.S. when an emergency occurs, and a Canadian or Mexican hospital is closer than the nearest U.S. hospital that can provide the emergency services needed. - The beneficiary lives in the U.S., and a Canadian or Mexican hospital is closer to his/her home than the nearest U.S. hospital that can provide the care needed, regardless of whether or not an emergency exists. - The beneficiary is in Canada, traveling by the most direct route to or from Alaska and another State, and an emergency occurs that requires admittance to a Canadian hospital.	• When hospital insurance covers the inpatient stay in a Canadian or Mexican hospital, Medicare medical insurance can cover necessary doctors' services and any required use of an ambulance.	
Medicare Part A	D. Care in a Christian Science Sanatorium	• Medicare hospital insurance can help pay for inpatient hospital and skilled nursing facility services received in a participating Christian Science sanatorium if it is operated, or listed and certified, by the First Church of Christ, Scientist, in Boston.		

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
Medicare Part A	Skilled Nursing Facility Care	• Skilled nursing facility (SNF) care is the only type of nursing home care covered by Medicare; Medicare does not pay for nursing home care that is primarily custodial, even if that care is delivered in a skilled facility. • Skilled nursing facility care is acute care, while custodial nursing home care is long-term care. • A skilled nursing facility is a specially qualified facility that has the staff and equipment to provide skilled nursing care or rehabilitation and other related health services. • Most nursing homes in the U.S. are not SNFs, and many SNFs are not certified by Medicare. • Medicare hospital insurance can help pay for care in a skilled facility if two conditions are met: A doctor certifies that a beneficiary needs skilled nursing or skilled rehabilitation services on a daily basis. -- Skilled nursing care means care that can only be performed by, or under the supervision of, licensed nursing personnel. -- Skilled rehabilitative care includes such services as physical therapy performed by, or under the supervision of, a professional therapist.	Medicare hospital insurance can pay for these services in a skilled nursing facility: • A semiprivate room (2 to 4 beds in a room) • All meals, including special diets • Regular nursing services • Rehabilitation services, such as physical, occupational, and speech therapy • Drugs furnished by the facility during stay • Blood transfusions furnished during stay (see page 2 for coverage of blood) • Medical supplies, such as splints and casts • Use of appliances, such as a wheelchair.	Medicare hospital insurance cannot pay for these services: • Personal convenience items that beneficiary requests, such as a television in room • Private duty nurses • Any extra charges for a private room, unless it is determined to be medically necessary • Custodial nursing home care services provided to persons with chronic, long-term illnesses or disabilities. • Occasional services, such as rehabilitation once or twice a week.

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
		- The Medicare intermediary or the facility's Utilization Review Committee does not disapprove the stay. • Medicare hospital insurance cannot pay for occasional services, such as skilled nursing or rehabilitation once or twice a week; nor can it pay if the beneficiary does not need to be in a skilled facility to receive skilled services. • When skilled care is covered by Medicare, hospital insurance will help pay for up to 150 days per calendar year. • In 1989, the beneficiary must pay $25.50 in coinsurance each day for the first eight days of care during the year (although the coinsurance amount will increase after 1989). Medicare will pay all other allowable charges up to 150 days, even if the beneficiary is discharged and readmitted more than once during the year. • The requirement of three days of hospitalization immediately before entering a skilled nursing facility to qualify for Medicare has been eliminated as of January 1, 1989.		

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
Medicare Part A	Home Health Care	• Medicare can pay for covered home health visits to a beneficiary's home for part-time skilled health care delivered by a participating home health agency. - A home health agency is a public or private agency that specializes in giving skilled nursing services and other therapeutic services, such as physical therapy in a home setting. - A facility that mainly provides skilled nursing or rehabilitation services cannot be considered a "home." • Medicare can pay for home health visits only if all of four conditions are met: - The care needed includes intermittent skilled nursing care, physical therapy, or speech therapy. - The beneficiary is confined to home. - A doctor has determined there is a need for home health care, and has set up a home health plan. - The home health agency providing services is participating in Medicare. • Once the above conditions are met, either hospital insurance or medical insurance can pay for all medically necessary home health visits.	Medicare can pay for these home health services: • Part-time or intermittent skilled nursing care • Physical therapy • Speech therapy • If intermittent skilled nursing care, physical therapy, or speech therapy is needed, Medicare can also pay for: - Occupational therapy - Part-time or intermittent services of home health aides - Medical social services - Medical supplies - Durable medical equipment (80% of approved cost).	Medicare cannot pay for these services: • Full-time nursing care at home • Drugs and biologicals • Meals delivered to the home • Homemaker services • Blood transfusions

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
		• When intermittent skilled nursing care, physical therapy, or speech therapy is no longer needed, Medicare can continue to pay for home health visits if occupational therapy is needed. • Medicare pays the full approved cost of all covered home health visits, although the beneficiary may be charged for services or costs that Medicare does not cover. • Effective January 1, 1990, if a beneficiary qualifies for home health care, reasonable and necessary skilled nursing care and/or home health aide care will be available for up to six days per week for as long as it is prescribed by a doctor. - If such home health care is needed seven days per week, the beneficiary will be entitled to 38 consecutive days of care. - The 38-day limit can be extended for a period of time under special circumstances.		

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
Medicare Part A	Hospice Care	• Medicare hospital insurance can cover hospice and respite care. - Hospice care is provided by a public agency or private organization that is primarily engaged in providing pain relief and symptom management, as well as supportive services, to terminally ill people and their families. - Respite care is a short-term inpatient stay, which may be necessary for a patient, to give relief to the person who routinely provides home care. Each inpatient respite stay is limited to no more than five days in a row. • Medicare hsopital insurance can help pay for hospice care if all of the following three conditions are met: - A doctor certifies that a beneficiary is terminally ill. - A beneficiary chooses to receive care from a hospice instead of standard Medicare benefits for the terminal illness. - Care is provided by a Medicare-certified hospice. [Not all hospices are certified by Medicare.] • Special benefit periods cover hospice care. Medicare hospital insurance can pay for two 90-day periods, one subsequent 30-day period, and a further extension period of indefinite length.		

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
		- A beneficiary may disenroll from the hospice during either 90-day period to return to regular Medicare coverage, and then later re-elect the hospice benefit. - Effective January 1, 1989, unlimited hospice care will be available to beneficiaries who are recertified as terminally ill after 210 days of hospice care. • There are no deductibles under the hospice benefit. - Medicare pays the full cost of all covered services for the terminal illness, except for small coinsurance amounts for outpatient drugs and inpatient respite care. - The beneficiary is responsible for 5 percent of the cost of outpatient drugs, or $5 toward each perscription. - If a beneficiary, who is receiving hospice care, needs treatment for a condition not related to the terminal illness, Medicare will continue to help pay for all necessary covered services under the standard Medicare benefit program. - The beneficiary is responsible for 5 percent of the Medicare-allowed rate (approximately $3.25 per day in 1989) for inpatient respite care. The Medicare-allowed rate varies slighily depending on the geographic area of the country.		

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
Medicare Part B	Medicare Medical Insurance (All Part B Benefits, unless otherwise specified)	• Medicare determines the "approved" or "reasonable" charge for each service received by beneficiaries. • Beneficiaries are responsible for paying the first $75 of approved charges as a medical insurance deductible. • After the beneficiary has paid the annual $75 deductible, Medicare will cover 80 percent of the approved charges for any additional covered services. • The beneficiary is responsible for a coinsurance amount of the remaining 20 percent and/or any charges for non-covered or non-approved services. - Beginning January 1, 1990, beneficiaries' share of approved charges for services and supplies will be limited to $1,370/year (this limit will be increased annually). - The beneficiary will continue to be responsible for the annual $75 deductible and 20 percent of all approved charges until these out-of-pocket expenses total $1,370. - Over the $1,370 (1990 cap) is reached, Medicare will pay 100 percent of all other approved charges for most services under medical insurance for the rest of the calendar year.		

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
		- If a doctor or medical supplier does not accept assignment of Medicare benefits, and charges more than Medicare's approved charges, the beneficiary must pay the difference and that "excess" payment does not count toward the $1,370 cap (catastrophic limit). - For charges by physicians and suppliers who do not accept assignment, beneficiaries will continue to be responsible for costs in excess of what Medicare approves even if this amount exceeds the $1,370 out-of-pocket limit.		
Medicare Part B	Covered Doctors' Services	• Medicare medical insurance can help pay for covered services received from a physician in his/her office, in a hospital, in a skilled nursing facility, in the beneficiaries' home, or any other location in the U.S. Medical insurance can also help pay for doctors' services received in connection with covered inpatient care in a Canadian or Mexican hospital.	Medicare medical insurance can help pay for these doctors' services: • Medical and surgical services, including anesthesia • Diagnostic tests and procedures that are part of treatment • Radiology and pathology services by doctors for hospital inpatients or outpatients. • Other services that are ordinarily furnished in the doctor's office and included in his or her bill, such as: - X-rays - Services of the doctor's office nurse	Medicare medical insurance cannot pay for these services: • Most routine physical examinations and tests directly related to such examinations • Routine foot care • Eye or hearing examinations for prescribing or fitting eyeglasses or hearing aids • Immunizations (except pneumococcal vaccinations or immunizations required because of an injury or immediate risk of infection, and Hepatitis B for certain persons at risk) • Cosmetic surgery, unless it is needed because of accidental injury or to improve the function of a malformed part of the body.

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
			- Drugs and biologicals that cannot be self-administered - Transfusions of blood and blood components - Medical supplies - Physical/occupational therapy and speech pathology services • Second opinion before surgery.	
Medicare Part B	Chiropractors' Services	• Only one kind of treatment furnished by a licensed, Medicare-certified chiropractor is covered: Manual manipulation of the spine to correct subluxation than can be demonstrated by X-ray.	• Manual manipulation of spine.	• Diagnostic or therapeutic services, including X-rays.
Medicare Part B	Podiatrists' Services	• Medicare medical insurance can help pay for any covered services, such as the removal of plantar warts, performed by a licensed podiatrist. • Medical insurance can help pay for routine foot care if the beneficiary has a medical condition affecting the lower limbs, such as severe diabetes, that requires such care be performed by a podiatrist, doctor of medicine, or osteopath.	• Plantar warts • Routine foot care only when needed by beneficiary with medical condition affecting lower limbs.	• Medical insurance generally does not cover routine foot care, such as: - Hygienic care - Treatment for flat feet - Treatment for structural misalignments - Removal of corns, callouses, and most warts

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
Medicare Part B	Dental Care	• Medical insurance can help pay for dental care only if such care involves: - Surgery of the jaw or related structures - Setting fractures of the jaw or facial bones - Services that would be covered if provided by a physician. • Medicare can cover hospital stays required by the severity of a dental procedure, even if the dental care itself is not covered.	• Surgery on jaw/related structures • Treating fractures of facial bones/jaw • Procedures that are covered under Doctors' Services	• Treatment, filling, removal, or replacement of teeth. • Root canal therapy • Surgery for impacted teeth • Other surgical procedures involving teeth or structures directly supporting the teeth • Dentures
Medicare Part B	Optometrists' Services	• Medicare can help pay for the vision care of optometrists, if the services are among those already covered by Medicare and if the optometrists is legally authorized to perform such services.	• Eye surgery • Prosthetic lenses	• Routine eye exams • Eyeglasses or corrective lenses, unless they are prosthetic lenses that replace the natural lens of the eye.
Medicare Part B	Outpatient Hospital Services	• Medicare medical insurance pays for covered services for diagnoses and treatment of illness or injury received by beneficiaries as outpatients in participating hospitals, after deductible of $75 has been met. • Under some conditions, emergency outpatient care received in a non-participating hospital may also be covered.	Medicare medical insurance helps pay for outpatient hospital services: • Services in an emergency room or outpatient clinic. • Laboratory tests billed by the hospital • X-rays and other radiology services billed by the hospital	Medicare medical insurance cannot pay for these services: • Routine physical examinations and tests directly related to such examinations • Eye or ear examinations to prescribe or fit eyeglasses or hearing aids

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
			• Medical supplies, such as splints and casts. • Drugs and biologicals that cannot be self-administered. • Blood transfusions furnished to an outpatient.	• Immunizations (except pneumococcal and Hepatitis B vaccinations, or immunizations required because of an injury or immediate risk of infection). • Routine foot care.
Medicare Part B	Outpatient Mental Health Services	• Medicare can help pay for mental health care in a hospital outpatient program providing a doctor has certified that such treatment is necessary and that without treatment the beneficiary would require hospitalization. • This benefit is not subject to the hospital insurance lifetime limit of 190 days of inpatient hospitalization for treatment of mental illness, nor is it subject to CORF limitations of $1,100 per year (except for physicians' services). • Medicare will pay 80 percent of the cost of hospital outpatient care after the $75 deductible has been met.		
Medicare Part B	Ambulatory Surgical Services	• Medicare can pay 80 percent of approved fees for certain specified outpatient surgical procedures performed in a Medicare-certified ambulatory surgical center.		

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
		• The center can be affiliated with a hospital or it can be independent, but it must provide only ambulatory surgery services and it must have an agreement with Medicare. • After the $75 deductible has been met, Medicare will pay 80 percent of surgeon's and anesthesiologists approved charge for services, including pre- and post-operative care furnished on an outpatient basis in an ambulatory surgical center.		
Medicare Part B	Outpatient Physical and Occupational Therapy and Speech Pathology Services	• Medicare medical insurance can help pay for medically necessary outpatient physical and/or occupational therapy or speech pathology services if three conditions are met: - The service(s) are prescribed by a doctor - The doctor or therapist must set up a plan of treatment - The treatment plan is periodically reviewed by the doctor. • For treatment received as an outpatient of a participating hospital or skilled nursing facility, or from a home health agency, clinic, rehabilitation agency, or public health agency approved by Medicare, Medicare will pay 80 percent of the approved charges after the $75 deductible has been met.		

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
		• For services received directly from an independently practicing, Medicare-certified physical or occupational therapist in his/her office or in beneficiarianes' home, Medicare medical insurance will pay a maximum of $400 per year. If charges for these services are used to meet any part of the $75 deductible, then the medical insurance payment would be less than $400.		
Medicare Part B	Comprehensive Outpatient Rehabilitation Facility Services	• Medicare can help pay for outpatient services received from a comprehensive outpatient rehabilitation facility (CORF) under some services, provided a doctor certifies that the beneficiary needs skilled rehabilitation services. • Medicare pays 80 percent of most CORF services after the deductible has been met. • For mental health treatment in a CORF, however, the maximum Medicare can pay is $1,100 per year for physicians' services and CORF services combined.	• Physical, speech, occupational, and respiratory therapies • Counseling • Other related services	

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
Medicare Part B	Independent Clinical Laboratory Services	• Medicare medical insurance can pay the total approved fee for covered clinical diagnostic tests provided by independent laboratories that are certified to perform them. • The laboratory must accept assignment for these tests, and it must be certified by Medicare (some laboratories are certified only for certain tests).		
Medicare Part B	Portable Diagnostic X-ray Services	• Medicare medical insurance helps pay the approved charges for portable diagnostic X-ray services received in the beneficiary's home if these are ordered by a doctor and if they are provided by a Medicare-certified supplier.		
Medicare Part B	Ambulance Transportation	• Medicare medical insurance can help pay for ambulance transport only if: - The ambulance, equipment, and personnel meet Medicare requirements. - The patient's health would be endangered by transport in any other vehicle. • Medicare coverage usually helps pay for ambulance transport only in the beneficiary's local area, unless local facilities cannot provide required care; in which case, payment will cover transport to closest facility outside local area that can provide needed care.		

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
		• Medicare payment will be based on the reasonable charge for transport to the closest facility if the beneficiary chooses to go to another facility that is farther away.		
Medicare Part B	Durable Medical Equipment	• Medicare medical insurance can help pay for oxygen equipment, wheelchairs, and other medically necessary equipment prescribed for home use by a doctor. • As of January, 1989, new rules govern the rental or purchase of such equipment: - In general, equipment that costs more than $150 must be rented. - Equipment that is less expensive may be rented or purchased. - Specific guidance from the local carrier should be sought before taking action.		
Medicare Part B	Blood Services	• Medicare medical insurance can help pay for blood or blood components received as an outpatient or as part of other covered services, except for the first three pints or units received in each calendar year. Therefore, Medicare pays 80 percent of the approved charges for blood starting with the fourth pint/unit, and after the beneficiary has met the $75 deductible.		

MEDICARE COVERAGE (CONTINUED)

SOURCE	BENEFITS	COVERAGE TERMS	SERVICES COVERED	SERVICES NOT COVERED
Medicare Part B	Prosthetic Devices	• Medical insurance helps pay for prosthetic devices needed to substitute for an internal body organ.	• Corrective lenses needed after cataract surgery. • Colostomy or ileostomy bags and certain related supplies. • Breast prostheses, including surgical brassiere, after a mastectomy. • Artificial limbs and eyes. • Arm, leg, back, and neck braces.	• Orthopedic shoes, except when they are part of leg braces, and the cost is included in the orthopedist's charges. • Dental plates or other dental devices.
Medicare Part B	Pneumococcal Vaccine	• Medicare medical insurance will pay the full approved charges for pneumoccal vaccine and its administration. • Neither the $75 annual deductible, nor the 20 percent coinsurance apply to this service.		
Medicare	Hepatitis B Vaccine	• Medicare will help pay for Hepatitis B vaccine for beneficiaries considered to be at high or intermediate risk of contracting the disease.		
Medicare Part B	Medical Supplies	• Medicare can help pay for surgical dressings, splints, casts, and similar medical supplies ordered by a doctor in connection with medical treatment.	• Medical supplies, other than first-aid supplies needed for medical treatment.	• Adhesive tape, antiseptics, other common first aid supplies.

THE ASSIGNMENT METHOD

PARTICIPATING DOCTORS AND SUPPLIERS

Doctors and suppliers can sign agreements to become Medicare-participating doctors or suppliers. This means that they have agreed in advance to accept assignment on all Medicare claims. Doctors and suppliers are given the opportunity to sign participation agreements each year. Medicare-participating doctors and suppliers can display emblems or certificates which show that they accept assignment on all Medicare claims.

The names and addresses of Medicare-participating doctors and suppliers are listed by geographic area in the "Medicare-Participating Physician/Supplier Directory." You can get the directory for your area free of charge from your Medicare carrier ; or you can call your carrier and ask for names of some participating doctors in your area. Also, this directory is available for review in all Social Security offices, state and area offices of the Administration on Aging, and in most hospitals.

ASSIGNMENT

The assignment method, in which the doctor or supplier receives the medical insurance payment directly from Medicare, can save time and money. When the assignment mehtod is used, the doctor or supplier agrees to accept the charge approved by the Medicare carrier for the covered services. Medicare pays the doctor or supplier 80 percent of the approved charge, after subtracting any part of the $75 deductible not met. The doctor or supplier can charge you only for the part of the $75 deductible not met and for the coinsurance, which is the remaining 20 percent of the approved charge. Of course, the doctor or supplier also can charge for any services that Medicare does not cover.

If the doctor does not accept assignment, Medicare pays 80 percent of the approved charge, after subtracting any part of the $75 deductible not met. The doctor can bill his or her actual charge. Below are examples of the two payment methods (in both examples, the $75 deductible has already been met).

	Actual Charge	Medicare Approved Charge	Medicare Pays	Beneficiary is Responsible for
Doctor Accepts Assignment	$500	$400	$320 (80% of approved charge)	$80 (20% of approved charge)
*Doctor Does Not Accept Assignment	$500	$400	$320 (80% of approved charge)	$180 (difference between actual charge and Medicare payment)

* Medicare law requires doctors who do not take assignment for elective surgery to give a written estimate of beneficiary out-of-pocket costs if the total charge is $500 or more.

Source: The Medicare Handbook, 1989, p.19

BENEFICIARY REQUIREMENTS FOR PRIVATE HEALTH PLAN OPTION

- Beneficiary must be enrolled in Medicare's medical insurance (Part B) and must continue to pay the Part B premium.
- Beneficiary must live within a geographic area that is served by the HMO of CMP under Medicare contract.
- If the beneficiary has elected hospice care, he/she is ineligible to enroll in this option as long as the hospice election remains in effect. (However, once enrolled as an HMO or CMP member, the beneficiary may receive hospice benefits without disenrolling from the HMO or CMP.)
- Beneficiaries with end-stage renal disease are not permitted to elect this option, although HMO or CMP members, who later develop end-stage renal disease, are not required to disenroll.
- Beneficiary usually will be required to receive all care from the HMO or CMP, except in emergency situations.

Source: *Medicare Handbook of 1989*

Handout

CATASTROPHIC CARE

NEW HOSPITAL BENEFITS:

Medicare hospital insurance (Part A) helps pay for medically necessary care in a Medicare-approved hospital, skilled nursing facility and hospice. It also pays for certain home health care.

Beginning January 1, 1989, beneficiaries entitled to unlimited hospitalization for approved care after paying a single annual deductible, estimated at $564 in 1989. (A deductible is an amount one must spend before Medicare begins paying for services and supplies covered by the program.) Medicare will pay for hospital care only if beneficiary meets the following four conditions: (1) a doctor prescribes inpatient hospital care for treatment of illness or injury, (2) individual requires the kind of care that can only be provided in a hospital, (3) the hospital is participating in Medicare, and (4) the Utilization Review Committee of the hospital or a Peer Review Organization does not disapprove the stay.

Once beneficiaries meet these conditions and pay the single annual deductible, Medicare pays 100 percent of the *approved* charges for care. This is regardless of the costs, length of stay or number of times person is admitted to the hospital in any one year. And if deductible was paid during December, it does not have to paid again if one is still a patient in or is readmitted to the hospital in January of the following year.

While most hospital-related costs are covered by Medicare, beneficiary must pay for certain services and conveniences, such as a private room (unless it is a medical necessity), private duty nurses, a television, radio, or telephone in the room.

PSYCHIATRIC HOSPITAL BENEFIT:

The 190-day lifetime limit on inpatient psychiatric hospital services remains unchanged.

SKILLED NURSING FACILITY CARE:

The new law provides for 150 days of care per calendar year in a Medicare-certified skilled nursing facility starting January 1, 1989. If admitted to a skilled nursing facility, beneficiary will be responsible for copayments (a share of the costs) for the first eight days of care each year. The copayment is estimated at $22 per day in 1989. Medicare pays all other allowable charges for up to 150 days of covered care even if person is discharged and readmitted to a skilled nursing facility more than once during a calendar year. The requirement that beneficiary be hospitalized at least three days immediately before entering a skilled nursing facility to qualify for Medicare coverage will be eliminated for stays starting on or after January 1, 1989.

Skilled nursing facility care is not the same as custodial nursing home care. Skilled nursing facility care is acute care, while custodial nursing home care is long-term care. A skilled nursing facility is a specially qualified facility which has the staff and equipment to provide skilled nursing care or rehabilitation and other related health services. Most nursing homes in the United States are not skilled nursing facilities and many skilled nursing facilities are not cerified by Medicare. While Medicare does not cover custodial care in a nursing home, some insurance companies offer policies that do.

HOME HEALTH CARE

Effective January 1, 1990, if beneficiary qualifies for home health care, reasonable and necessary skilled nursing care and/or home health aide care will be available for up to six days a week for as long as it is prescribed by a doctor. If such home health care is needed seven days a week , beneficiary will be entitled to 38 consecutive days of care. The 38-day limit can be extended for a period of time under special circumstances.

Source: DHHS, January 1989

CATASTROPHIC CARE (Contd.)

DOCTORS AND OTHER OUTPATIENT SERVICES (PART B):

Medicare Part B helps pay for medically necessary doctor services, outpatient hospital services, home health care, and various medical services and supplies not covered by the hospital insurance part of Medicare. It is voluntary, and enrollees pay a monthly premium

Effective January 1, 1990, enrollee share of approved charges for services and supplies covered by Part B will be limited to $1,370 a year. Individuals will be required to pay the first $75 (deductible) of charges approved by Medicare and 20 percent of all approved charges after that until these out-of-pocket expenses total $1,370. It does not matter whether these expenses are paid directly by beneficiary or by private insurance company. Once the $1,370 amount is reached, Medicare will pay 100 percent of all other approved charges under Part B for the remainder of the calendar year. (An approved charge is an amount Medicare has determined to be a reasonable price for physicians and other covered medical services.)

If a doctor or medical supplier charges more than Medicare's approved charge, beneficiary must pay the difference and it will not count toward the $1,370 limit. Beneficiary will continue to be responsible for any charges over what Medicare allows even after reaching the $1,370 out-of-pocket limit. Some doctors and suppliers agree to not charge more than the Medicare-approved amount for services and supplies. They are called participating physicians and suppliers, and their names and addresses may be obtained from the Medicare carrier for your area.

RESPITE CARE BENEFIT:

This new benefit, effective January 1, 1990, pays for the temporary services of a home health aide to provide relief for an individual who normally helps a Medicare beneficiary who requires assistance with essential daily personal care. Medicare will pay for up to 80 hours per year of home health aide and personal care services. Individuals can use this benefit only if they are chronically dependent and have met either the annual deductible for outpatient prescription drugs or the $1,370 Part B catastrophic limit for the year.

MAMMOGRAPHY

This new benefit, which goes into effect January 1, 1990, will pay up to $50 for X-ray screening for the detection of breast cancer. Women 65 or older can use the benefit for a mammogram every other year, while certain younger disabled women covered by Medicare can use it for more frequent examinations.

NEW PRESCRIPTION DRUG BENEFIT

Medicare already pays for prescription drugs used in the hospital. Begining January 1, 1990, the benefit will be expanded to cover a few outpatient prescription drugs in certain circumstances, and in 1991 it will cover most prescription drugs as well as insulin.

In 1990, Medicare will help pay for certain antibiotics and other drugs that are injected into the veins (intravenous) and can be safely used at home. Coverage also will be expanded in 1990 to include immunosuppressive drugs used in the second year and thereafter following a Medicare-covered organ transplant. Medicare already helps pay for immunosuppressive drugs taken the first year following a Medicare-covered organ transplant.

In 1990, beneficiary will have to pay the first $550 for these covered drugs. Medicare will then pay 80 percent of the cost of approved intravenous drugs and 50 percent of the cost of immunosuppressives used after the first year following a transplant. Beneficiary will not have to pay the $550 deductible if the intravenous drug therapy began during a hospital stay and is continued at home, or for immunosuppressive drugs used in the first year after a transplant.

Effective Janùaery 1, 1991, Medicare will cover most other prescription drugs, as well as insulin. Beneficiary will be responsible for an annual deductible and copayments. In 1991, the deductible will be $600 and the copayment 50 percent. This means that after beneficiary pays the first $600 for covered outpatient prescription drugs, Medicare will pay half of all other allowed drug charges for the remainder of the calendar year. In 1992, the deductible is estimated to be $652 and the copayment 40 percent. In 1993 and thereafter, if the new catastrophic coverage premiums have been sufficient to cover costs, Medicare will pay 80 percent of all the allowable drug charges in excess of the deductible. The deductible for 1993 is to be set at a later date.

CATASTROPHIC CARE (Contd.)

WHERE CAN I GET MORE INFORMATION?

If you require additional information about Medicare, contact the Medicare carrier that processes claims for your area. The carrier's telephone number is listed in The Medicare Handbook. Information, including the carrier's telephone number, also may be obtained by calling 1-800-888-1998.

Questions about the supplemental premium should be directed to the Internal Revenue Service.

Who Would Pay for Nursing Home

WHO WOULD PAY FOR NURSING HOME

Q.: If you had a long term illness which caused you to be placed in a nursing home, who would pay thebill?		Three Key Groups			
Base	Total Elderly 2506 %	Those Living With Spouse 1184 %	Those Living Alone 985 %	Those Alone and Poor 243 %	Those on Medicaid 366 %
Who Would Pay for Nursing Home					
Personal funds, savings	28	28	30	15	20
Private health insurance	23	28	20	12	17
Medicare	15	16	13	13	17
Family or spouse	9	10	8	9	8
Medicaid	3	2	4	7	13
Other (V.A., etc.)	2	2	2	4	2
Would not be able to pay	3	2	3	5	4
Would need to sell home	1	1	2	2	1
Not sure who would pay	28	26	31	45	35

Source: Commonwealth Fund Commission on Elderly People Living Alone, 1986, P. 42. Reprinted with permission of Louis Harris and Associates. *Problems Facing Elderly Americans Living Alone*. Baltimore, MD: Commonwealth Fund Commission on Elderly People Living Alone.

WHAT'S IN A GOOD POLICY?

FEATURES	RECOMMENDED	YOUR POLICY
Daily nursing-home benefit	$80.00	$_____
Waiting period	20 days	_____
Maximum benefit period for one stay	4 years	_____
Maximum benefit period for all stays	Unlimited	_____
Does it pay full benefits in :		
Skilled-nursing facility?	Yes	_____
Intermediate facility?	Yes	_____
Custodial facility?	Yes	_____
(If not, what does it pay?)		
If it has a prior-hospitalization rule does coverage begin within 30 days after a hospital stay of at least 3 days?	Yes	_____
Does it pay home-care benefits?	Yes	_____
Does ii pay these without requiring nursing-home care, or a hospital stay?	Yes	_____
Does it have waiver of premium?	Yes	_____
Is it guaranteed renewable for life?	Yes	_____
Is Alzheimer's disease covered by specific policy language?	Yes	_____
Does the premium stay level for life?	Yes	_____
What is the Best's rating of the company?	A or A+	_____
No premium is recommended; premiums vary with the age of the policyholder:	---	$ _____

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Handout

PERCENT DISTRIBUTION OF PERSONAL HEALTH CARE EXPENDITURES BY SOURCE OF FUNDS FOR PEOPLE 65 + BY TYPE OF SERVICE: 1984*

	Type of service				
Source of funds	Total Care	Hospital	Physician	Nursing Home	Other Care
Total per capita	100.0	100.0	100.0	100.0	100.0
Private	32.8	11.4	39.7	51.9	65.3
Consumer	32.4	11.0	39.6	51.2	64.8
Out-of-pocket**	25.2	3.1	26.1	50.1	59.9
Insurance	7.2	7.9	13.5	1.1	4.9
Other private	0.4	0.4	0	0.7	0.5
Government	67.2	88.6	60.3	48.1	34.7
Medicare	48.8	74.8	57.8	2.1	19.9
Medicaid	12.8	4.8	1.9	41.5	11.4
Other government	5.6	9.1	0.7	4.4	3.4

* Waldo, Daniel and Helen C. Lazenby. "Demographic Characteristics and Health Care Use and Expenditures by the Aged in the United States: 1977-1984." Health Care Financing Review Vol. 6, No. 1 (Fall 1984).

** Out-Of-Pocket funds exclude premium payments for Medicare Part B and private health insurance.

Source: Senate Special Committee on Aging, 1988, p. 125.

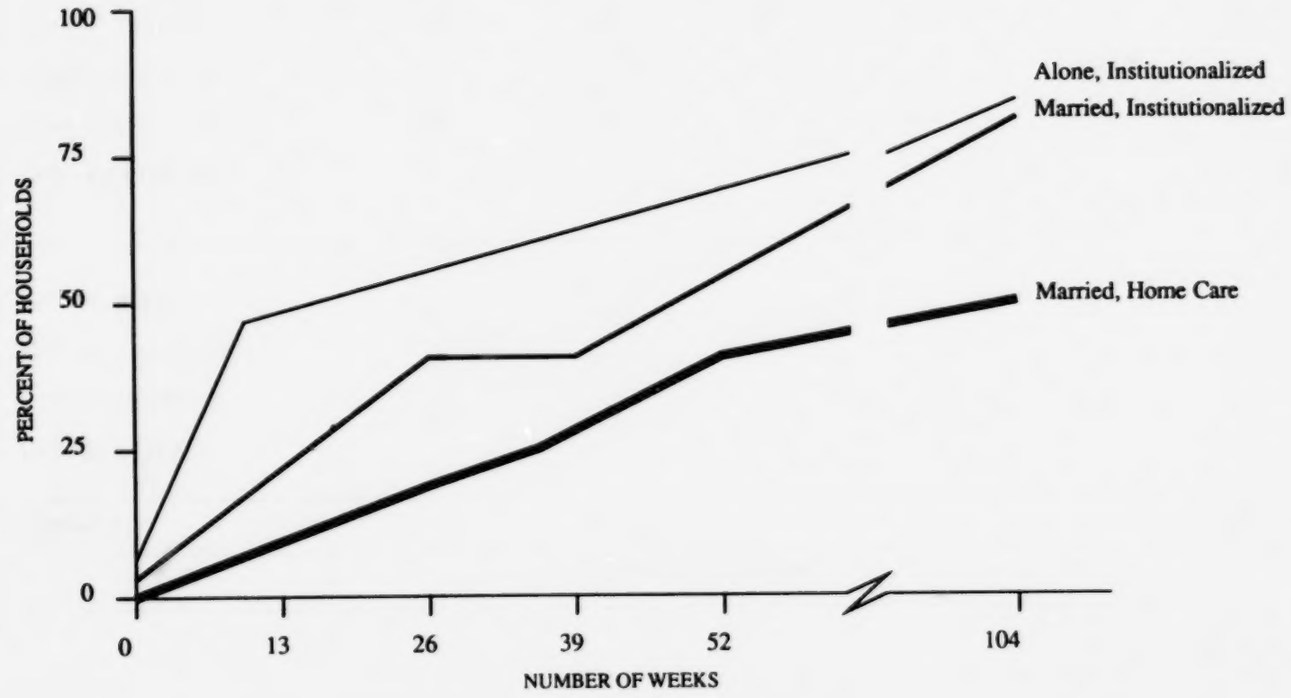
PERCENT OF ELDERLY IMPOVERISHED
By Number of Weeks

	Number of Weeks					
Sample	**0**	**13**	**26**	**39**	**52**	**104**
Pop. 75+ (HMS)						
Alone, In Institution	7%	46%	59%	66%	72%	85%
Married, In Institution	2%	25%	41%	43%	57%	82%
Married, At Home	2%	11%	25%	30%	41%	52%
Pop. 66+ (BC/BS)						
Alone, In Institution	8%	63%	74%	80%	83%	91%
Married, In Institution	4%	37%	47%	53%	57%	80%
Married, At Home	4%	16%	44%	39%	47%	55%

Source: Senate Special Committee on Aging, 1988.

NUMBER OF WEEKS REQUIRED FOR MASSACHUSETTS ELDERLY TO SPEND-DOWN INCOME AND ASSETS TO APPROXIMATE MEDICAID ELIGIBILITY, 1984*

Population Aged 75+ (HMS)

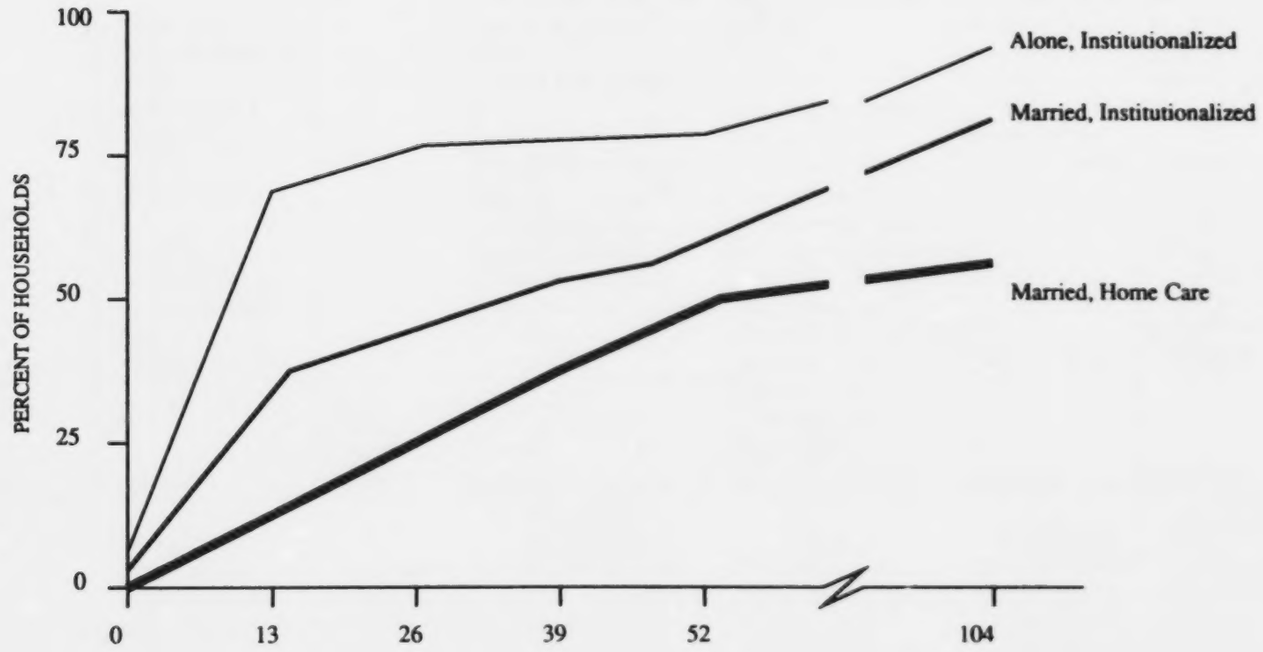


*L.G. Branch, Massachusetts Health Care Panel Study, Wave IV, 1985

Source: Senate Special Committee on Aging, 1988.

NUMBER OF WEEKS REQUIRED FOR MASSACHUSETTS ELDERLY TO SPEND-DOWN INCOME AND ASSETS TO APPROXIMATE MEDICAID ELIGIBILITY, 1984*

Population aged 66+ (BcBS)



*Friedman and Socholitzky, Blue Cross and Blue Shield of Massachusetts, 1985.

Source: Senate Special Committee on Aging, 1988.

Prepared by Ruth Von Behren,
NIAD Chair

FEDERAL LTC LEGISLATION
1988

	Mitchell S.2305 Long-Term Care Assistance Act of 1988	Obey HR 4763 Long-Term Care Assistance Act of 1988	Melcher S.2671 Helping Expand Access to Long-Term Health Care (HEALTH) Act of 1988	Kennedy S.2681 Life Care Long-Term Care Protection Act	Waxman HR 5320 Elder-Care Long-Term Care Assistance Act of 1988	Stark HR 5393 Chronic Care Medicare Long-Term Care Coverage Act of 1988
Admin.	Medicare	House Version of S.2305	Federal/Contract State - Part C, Medicare	Federal, State or private NP Amends Pub. Health Act	Medicare Part C	Medicare
Benefits	<u>Chronic home care</u> all HH benefits homemaker, chore <u>Respite care</u> ADC companion homemaker/ chore <u>Chronic nursing home care</u>		<u>Home care</u> nursing, PT, OT, ST soc. services, HH aide medical supplies, durable medical equipment, medical services, personal care, homemaker, chore <u>Adult Day Health Care</u> medical services (personal or private MD), psychiatric/ psychology (consultation & assessment) PT or OT or ST, activities, transportation, nutrition, podiatry, optometric, dental	Home or OP nursing, PT, OT, ST social services HH aide, mobility aids & adaptations, nutrition & dietary counselling, personal care, homemaker, heavy chore, transportation <u>ADHC</u> MD - could be private MD, nursing, social work, PT, OT, RT or ST (implied in MD team requirement)	<u>Community care</u> furnished by home-care agency or by arrangement with them: nursing, homemaker/home health aide, personal care, medical social services, physical, occupational or respiratory therapy, speech-language pathology, medical supplies, durable medical equipment,	<u>Long-term home health care</u> home health, homemaker, home health aide not subject to skilled HHA limitations <u>Adult Day Care</u> nursing, PT, OT ST, medical social services, personal care, therapeutic social, physical & educational activities, transportation, nutrition - directly or under arrangement

Federal LTC Legislation
1988
(Continued)

	S.2305	HR 4763	S.2671	S.2681	HR 5320	HR 5393
Benefits (contin.)			Nursing Home Not covered	Nursing Home First 6 months covered = ext. 1 yr. if prob. return home. Repeat 6 mo. coverage if out hospital or SNF 6 or more mo. Only for 65+ - optional insurance for nursing home over 6 mo. for persons over 45 Individual purchase at 45 or 65; individual pays room & board/plan pays 35% of rate	education & training for patient & caregiver, day treatment or other partial hosp., Nursing facility nursing, bed & board, PT, OT, respiratory therapy, speech language pathology, medical social services, drugs, biological supplies, appliances & equipment, medical services	Chronic Nursing Home
		Same as S.2305	Respite companion, day care, homemaker	Respite all above services or nursing home		

Federal LTC Legislation
1988
(Continued)

	S.2305	HR 4763	S.2671	S.2681	HR 5320	HR 5393
Eligibility	2 ADL assist or dementia		Home Health & ADHC Assistance in 2 ADL - person can be cognitively impaired Respite 1 ADL (can be from cognitive impairment), has unpaid daily caregiver	Home Health & ADHC 65 yrs., Medicare Part A eligible due to disability under 19 yrs. completely dependent; 1 ADL or assist in 2 or cog. impaired & requires constant supervision Respite Above requirements & dep. on caregiver daily - 2 ADL or dementia	Community Care chronically dependent individual - help in 2 ADLS (phys. or cog. impairment) Nursing home chronically dependent individual, requires LTC provided by facility likely to be there at least 60 d. All Medicare-eligible	Chronically ill individual - nursing home - 3 ADLS community & home care 2 ADLS cognitive impairment, req. supervision All Medicare-eligibles

Federal LTC Legislation
1988
(Continued)

	S.2305	HR 4763	S.2671	S.2681	HR 5320	HR 5393
Case Management	who unspecified; requires MD certif. plan		Determine eligibility follow-up assessment can not be providers	LTC Agency 1. Screening, Eligibility & Funding Level 2. Case Mgt Assessment, plan of care, RN & SW, can't exceed general area amount	Community Assess. Review Eval. (CARE) One for each state. Assessments by multi-dis. team – RN and others as needed. Uniform assess. instrument. Reassess: 6 mo. for com. care; 12 mo. NH. Establish & review plan of care for community care & NH. May contract out functions.	CM agency - - non-profit, PRO HMO; not a provider of NH or home & community care - Comprehensive assessment, uniform instrument, by CM - consultation as appropriate - Plan of care by CM - CM is RN or SW - CM also does eligibility assess. - Reassess - - Initial, 3 mo., 6 mo. for H & C care - annual - NH - monitor services

Federal LTC Legislation
1988
(Continued)

	S.2305	HR 4763	S.2671	S.2681	HR 5320	HR 5393
Limitations	Chronic Home Care $500 deductible 20% copay Respite only for person with live-in unpaid care-giver 50% copay, $1000 limit on Medicare Chronic NH 2 yr. in NH before eligible	Same as 2305 125d per calendar	Home Care 65% annual Medicare SNF costs copay $5 per visit income 200% + poverty level ADHC year. Per diem based on reasonable costs $5 per day copayment income 200% poverty level Respite Care $2000 limit, 25% copay	Home Care 65% Medicare SNF first 3 yrs. not to exceed SNF copay 5% of SSA or 10% of costs, whichever is less ADHC same as Home Care above Respite 30d.	CARE cannot be provider or have fiscal interest in servees Community Care 80% of fee schedule (annual req. adj.): mild impairment - 35% NH per diem rate; moderate impairment - 50% NH per diem; severe impairment - 65% NH per diem 20% coinsurance Nursing Home 40% adj. board & room rate, 60% adj. person. care rate; weighted by level of impairment	ADC - up to 5 days per week - reasonable costs rehab., transportation, all other Costs of home & ADC may not exceed 100% of NH if skilled nursing & rehab. prescribed; 75% for other; home care only 65% of NH; both: 20% copay NH rate 20-85% of national per diem cost of skilled care; adj. possible 90 d. deductible except for 150% - 200 poverty; then 20% copay

Federal LTC Legislation
1988
(Continued)

	S.2305	HR 4763	S.2671	S.2681	HR 5320	HR 5393
Limitations (continued)					coinsurance: 60 day - 2 years - 33.5% of national per diem - 2 yrs plus - 10% national per diem rate. Do not apply if Part A covers	
Financial	Medicare: Fee Schedule; Part B • Increase Part B payment if taxable income more more than $150 • Remove $45,000 limit on SSA • 5% surtax estates over $200,000 • 5% gifts beyond $200,000 gift limit • Estab. LTC Insurance Trust Fund • Requires Medicaid buy-in of premium for indigent Medicare persons • Spousal impoverishment (amends Budget Act of 1987) • Medicaid excess savings mean reduction in Federal match • LTC payments ded. as medical expenses		State • $ for pop. past yr $ projected without new prog. • no less than 5% state or more than 25% state share • $ saved to under served under 65 Federal • Medicare lift SSA $45,000 cap • estab. Federal LTC Trust Fund	State • amt spent • variable payment dependent on plans of care • LTC agency pays providers • 2nd payor to other entitlements • Screening & elig. determines total costs for plan Federal Public Health Funds	Medicare secondary payor Establish Medicare trust fund Assessments: $25 charge Com. Care; $50, NH Mandatory state Medicare/Medicaid buyin Estate surtax/ $100,000+ Gift surtax - 10% of over $100,000 LTC surcharge - tax liab. $100+ = 3.50	SS limit raised to $100,000 Revised estate & gift tax rates Increase payroll tax Repeal of state death tax credit increase Part B $5

Federal LTC Legislation
1988
(Continued)

	S.2305	HR 4763	S.2671	S.2681	HR 5320	HR 5393
Provider Qualifications	HHA or other agency meets regulation requirements		Multidisciplinary team, written plan directly provides: nursing, social services, personal care, activities Prof. manag. resp: • all other services Multidisciplinary Team Physician - staff or priv., RN (staff), SW (staff); as needed: PT, RT, OT, ST, consultants, dietician Assesses; treatment plan; provides or supervises services, health records, policies, uses volunteers; licensed if required by state	ADHC identify admin. unit, public or private, meets standards dev. by Sec. Multidisciplinary Team Staff or consultant: MD, private or staff, RN, SW, PT, RT, OT, dietician Certified by state	NH - meets requirements Home care - meets requirements as stated in 1861 (mm amendment)	ADC - public or private directly provides or arranges for services - personnel: MD, RN SW, appropriate rehab. prof. & as needed dietician homemaker - public or private, meets conditions

Federal LTC Legislation
1988
(Continued)

	S.2305	HR 4763	S.2671	S.2681	HR 5320	HR 5393
Quality Assurance	Certif. providers Elig. Rev. Organ. reviewed by PRO		PRO review case managers; elig. determination; provider standards must be met	State QA Board; state monitors LTC agency; Com. Advis. Bd.; State certifies Survey process	CARE resp. for monitor	Surveys CM agencies Certif. of ADC program & homemaker agency
Other			Medical Emergency Procedures Study: 1) Inclusion of chronic nursing home benefits 2) ADL criteria	Consider NIAD/ NCOA standards Spell of illness begins first day of covered services for 6 months Grants for training programs	Increase in NH beds reduces rate Study of admissions to NH, NH bed rates, payment rate NH Medical home & community waivers - Medicaid optional services (includes ADHC) Amends Public Health Act - grants to community care agencies in medically unserved areas - subsidize sliding fee	Excess Medicaid savings for Maternal & Child Health Home modif. projects LTC insurance policy vol. certif./ standards Expand Medicaid buy-in 200% of poverty Individual elects this part instead of current Title XXVIII HHA benefits

VI. Resources

A. EDUCATION AND INFORMATION EXCHANGE

- The National Health Policy Forum
  2011 I Street, NW, #200
  Washington, DC 20006
  (202) 872-1390

- National Senior Citizens Law Center
  2025 M Street, NW, Suite 400
  Washington, DC 20036
  (202) 887-5280

- National Citizens' Coalition for Nursing Home Reform
  1424 16th Street, NW, Suite L2
  Washington, DC 20036

- Families U.S.A. Foundation (formerly The Villers Foundation)
  1334 G Street, NW
  Washington, DC 20005
  (202) 628-3030

- National Conference of State Legislatures
  (For state health policy publication series)
  1050 Seventeenth Street, Suite 2100
  Denver, CO 80265
  (303) 623-7800

Funding Resource:

- Families U.S.A. Foundation (formerly The Villers Foundation)
  1334 G Street, NW
  Washington, DC 20005

  Primary focus for funding is assistance facilitate organizing and advocacy among local and statewide groups of elders, collectively engaged in their own empowerment with a lower-income orientation. Supports networking and coalition-building by national organizations around priority issues, such as health care and income maintenance. Also supports applied public policy research and special projects.

B. WHERE TO CALL FOR INFORMATION

MEDICARE

Assignment of Medicare Claims
Bureau of Eligibility, Reimbursement, and Coverage
(301) 594-9682

Beneficiary Assistance on Claims and Entitlement
Office of Program Operations Procedures
Bureau of Program Operations
(301) 594-9545

Beneficiary Information
Office of Beneficiary Services (Baltimore)
(301) 594-8131
Office of Beneficiary Services (DC)
(202) 245-7684

Benefit Appeal Procedures
Office of Financial Operations
Bureau of Program Operations
(301) 594-8431

Benefit Information
Bureau of Eligibility, Reimbursement, and Coverage
(301) 594-9690

Conditions of Provider Participation
Office of Standards and Certification
Bureau of Eligibility, Reimbursement, and Coverage
(301) 594-9690

Contractor Performance
Division of Performance Analysis
Bureau of Quality Control
(301) 594-8000

Contracts
Division of Contracts
Office of Program Administration
Bureau of Program Operations
(301) 594-9700

Cost Estimates
Division of Medicare Cost Estimates
Office of the Actuary
(301) 594-2826

Deductibles: Explanation of Beneficiary Liability
Bureau of Program Policy
(301) 594-9324

Enrollment Policy
Bureau of Eligibility, Reimbursement, and Coverage
(301) 594-9682

Entitlement
Bureau of Eligibility, Reimbursement, and Coverage
(301) 594-9682

Medicare and Medicaid Fraud, Abuse and Waste
Health and Human Services
(800) 638-3986 (MD toll free)
Office of the Inspector General
(800) 368-5779 (nationwide toll free)

Medicare Legislation
Medicare Branch
Office of Legislation and Policy
(202) 245-2413

Peer Review Organizations
Office of Medical Review
Health Standards and Quality Bureau
(301) 594-1432

Physician Provider Data
Analytical Studies Branch
Office of Research and Demonstrations
(301) 597-1460

Source: Health Care Financing Program Statistics of Medicare and Medicaid Data Book, 1986.

Prevailing Charges Directory
Office of Program Administration
Bureau of Program Operations
(301) 594-9470

Problems: Beneficiaries
Office of Beneficiary Services (Baltimore)
(301) 594-8131
Office of Beneficiary Services (DC)
(202) 245-7684

Problems: General
Office of the Administrator
Office of Public Affairs
(202) 245-7684

Procurements -- Medicare
Division of Procurement
Office of Program Administration
Bureau of Program Operations
(301) 594-8003

Public Information
Office of Public Affairs (Baltimore)
(301) 597-3883
Office of Public Affairs (DC)
(202) 245-0923

Publications: Health Care Financing Administration
Office of Public Affairs
(301) 597-2618

Publications: Office of Research and Demonstrations
Publications Office
Office of Research and Demonstrations
(301) 597-2422

Quality Care Issues
Office of Medical Review
Health Standards and Quality Bureau
(301) 597-1354

Quality Control
Office of Quality Control Programs
Bureau of Quality Control
(301) 597-1354

Reasonable Charges
Bureau of Eligibility, Reimbursement, and Coverage
(301) 597-1334

Regional Offices, Health Care Financing Administration

Boston	(617) 223-6871
New York	(212) 264-4488
Philadelphia	(215) 596-1351
Atlanta	(404) 221-2329
Chicago	(312) 353-8057
Dallas	(214) 767-6427
Kansas City	(816) 374-5233
Denver	(303) 837-2111
San Francisco	(415) 556-0254
Seattle	(206) 442-0425

Reimbursement Methods
Division of Reimbursement and Economic Studies
Office of Research and Demonstrations
(301) 594-8286

Research and Demonstration Studies
Office of Research and Demonstrations
(301) 597-3195

Rural Health Clinic Services
Division of Operational Initiatives
Office of Program Administration
Bureau of Program Operations
(301) 594-9101

Service Coverage
Bureau of Eligibility, Reimbursement, and Coverage
(301) 594-9690

State and Contractor Standards
Office of Financial Operations
Bureau of Program Operations
(301) 594-8431

State Buy-Ins
Office of Program Operations Procedures
Bureau of Program Operations
(301) 594-9545

State Certification Cost Data
Office of Standards and Certification
Health Standards and Quality Bureau
(301) 597-5137

Statistics: Assignment Rates
Division of Reports and Analysis
Bureau of Quality Control
(301) 597-3440

Statistics: Beneficiaries
Division of Beneficiary Studies
Office of Research and Demonstrations
(301) 597-1432

Statistics: Contractor Workloads and Cost
Division of Reports and Analysis
Bureau of Quality Control
(301) 597-3440

Statistics: General
Division of Information Analysis
Bureau of Data Management and Strategy
(301) 594-6705

Statistics: Institutional Care
Institutional Studies Branch
Office of Research and Demonstrations
(301) 597-5710

Statistics: Noninstitutional Studies
Noninstitutional Studies Branch
Office of Research and Demonstrations
(301) 597-1416

Statistics: Peer Review Organizations
Office of Medical Review
Health Standards and Quality Bureau
(301) 594-1432

MEDICAID

Abortion Data
Division of Reports and Analysis
Bureau of Quality Control
(301) 597-3440

Administration and Training Cost Data
Office of Financial Management and
Administrative Systems
Office of Management and Budget
(301) 597-6672

Aid to Families with Dependent Children, Energy Assistance, Need and Payment Standards
Office of Family Assistance
Office of Intergovernmental Communications
(202) 245-2637

Beneficiary Information
Office of Beneficiary Services (Baltimore)
(301) 597-2272
Office of Beneficiary Services (DC)
(202) 245-7684

Early and Periodic Screening, Diagnosis, and Treatment Data
Child Health and Prevention Staff
Executive Office
Bureau of Program Operations
(301) 597-0451

Eligibility
Bureau of Eligibility, Reimbursement, and
Coverage
(301) 594-9682

Eligibility Error Rates
Eligibility Assessment Branch
Division of Program Benefits Assessment
Bureau of Quality Control
(301) 597-1384

Expenditures
Total Program Expenditures
Division of State Agency Financial Management
Bureau of Program Operations
(301) 597-1702

Federal Financial Participation
Division of State Agency Financial Management
Office of Financial Operations
Bureau of Program Operations
(301) 597-1389

Freedom-of-Choice Waivers
Office of Eligibility Policy
(301) 594-8692
Bureau of Eligibility, Reimbursement, and Coverage
(301) 597-3870

Home and Community-Based Waivers
Office of Coverage Policy
Bureau of Eligibility, Reimbursement, and Coverage
(301) 594-9824

Medicaid Fraud and Abuse
Health and Human Services
(800) 638-3986 (MD toll free)
Office of the Inspector General
(800) 368-5779 (nationwide toll free)
Office of Investigations
State Fraud Branch
(202) 472-3222

Medicaid Institutional Providers
Office of Statistics and Data Management
Bureau of Data Management and Strategy
(301) 594-0942

Medicaid Legislation
Medicaid Branch
Office of Legislation and Policy
(202) 245-8220

Medicaid Management Information Systems
Division of Medicaid Procedures
Office of Program Operations Procedures
Bureau of Program Operations
(301) 594-8440

Medicaid Policy
Division of Policy Analysis
Office of Legislation and Policy
(202) 472-5240

Medicaid Vendor Payments
Division of Medicaid Cost Estimates
Office of the Actuary
(301) 597-1417

Medicare and Medicaid Regulations: Regulations Under Development and Status
Office of Regulations Management
Office of Executive Operations
(301) 597-4462

Procurements -- Medicaid
Division of Medicaid Procedures
Office of Program Operations Procedures
Bureau of Program Operations
(301) 594-8440

Public Information
Office of Public Affairs (Baltimore)
(301) 594-4323
Office of Public Affairs
(202) 245-6113

Publications: Office of Research and Demonstrations
Publications Office
Office of Research and Demonstrations
(301) 597-2422

Recipients
Division of Medicaid Cost Estimates
Office of the Actuary
(301) 597-1417

Reference Services
Division of Congressional Affairs and Reference Services
Office of Legislation and Policy
(202) 426-3717

Regional Offices, Health Care Financing Administration

Boston	(617) 223-6871
New York	(212) 264-4488
Philadelphia	(215) 596-1351
Atlanta	(404) 221-2329
Chicago	(312) 353-8057
Dallas	(214) 767-6427
Kansas city	(816) 374-5233
Denver	(303) 837-2111
San Francisco	(415) 556-0254
Seattle	(206) 442-0425

Research
Program Studies Branch
(301) 597-1428
Office of Research and Demonstrations
(301) 597-1454

State and Local Administration and Training
Office of Financial Management and Administrative Systems
Office of Management and Budget
(301) 597-6672

State Assessment
Division of Performance Analysis
Bureau of Quality Control
(301) 594-8000

State Certification Cost Data
Office of Standards and Certification
Health Standards Quality Bureau
(301) 597-5137

State Data
Division of Medicaid Cost Estimates
Office of the Actuary
(301) 597-1417

Statistics: General
Division of Medicaid Cost Estimates
Office of the Actuary
(301) 597-1417

Supplemental Security Income
Social Security Administration
Division of Program Management and Analysis
Office of Supplemental Security Income
(202) 673-5747

Third-Party Liability
Division of Operational Initiatives
Office of Program Administration
(301) 594-9101
Bureau of Program Operations
(301) 594-6703

Utilization
Division of Medicaid Cost Estimates
Office of the Actuary
(301) 597-1417

C. MEDICARE CARRIERS

Note: The toll-free or 800 numbers listed below can be used only in the states or service areas indicated. Also listed are the local commercial numbers for some carriers.

Alabama
Medicare/Blue Cross-Blue Shield of Alabama
P.O. Box C-140
Brimingham, Alabama 35283
1-800-292-8855
(205) 988-2244

Alaska
Medicare/Aetna Life and Casualty
200 S.W. Market Street, P.O. Box 1998
Portland, Oregon 97207-1998
1-800-547-6333

Arizona
Medicare/Aetna Life and Casualty
P.O. Box 37200
Phoenix, Arizona 85069
1-800-352-0411
(602) 861-1968

Arkansas
Medicare/Arkansas Blue Cross and Blue Shield
A Mutual Insurance Company
P.O. Box 1418
Little Rock, Arkansas 72203
1-800-482-5525
(501) 378-2320

California
Counties of: Los Angeles, Orange, San Diego, Ventura, Imperial, San Luis, Obispo, Santa Barbara
Medicare/Transamerica Occidental
Life Insurance Co.
Box 50061
Upland, California 91785-0061
1-800-252-9020
(213) 748-2311

Rest of State:
Medicare Claims Department
Blue Shield of California
Chico, California 95976
(in areas codes: 209, 408, 415, 707, 916)
1-800-952-8627
(916)743-1583
(in area codes: 213, 619, 714, 805, 818)
1-800-848-7713
(714) 824-0900

Colorado
Medicare/Blue Shield of Colorado
700 Broadway
Denver, Colorado 80273
1-800-332-6681
(303) 831-2661

Connecticut
Medicare/The Travelers Insurance Co.
P.O. Box 5005
Wallingford, Connecticut 06493-5005
1-800-982-6819
(in Hartford) (203) 728-6783

Delaware
Medicare/Pennsylvania Blue Shield
P.O. Box 65
Camp Hill, Pennsylvania 17011
1-800-851-3535

District of Columbia
Medicare/Pennsylvania Blue Shield
P.O. Box 100
Camp Hill, Pennsylvania 17011
1-800-233-1124

Florida
Medicare/Blue Shield of Florida, Inc.
P.O. Box 2525
Jacksonville, Florida 32231
1-800-333-7586
(904) 355-3680

Source: Medicare Handbook of 1989.

Georgia
See note at end of this listing
Name, address and phone numbers of carrier will be mailed to beneficiaries.

Hawaii
Medicare/Aetna Life and Casualty
P.O. Box 3947
Honolulu, Hawaii 96812
1-800-272-5242
(808) 524-1240

Idaho
Equicor, Inc.
P.O. Box 8048
Boise, Idaho 83707
1-800-632-6574
(208) 342-7763

Illinois
Medicare Claims
Blue Cross and Blue Shield of Illinois
P.O. Box 4422
Marion, Illinois 62959
1-800-642-6930
(312) 938-8000

Indiana
Medicare Part B
Associated Insurance Companies, Inc.
P.O. Box 7073
Indianapolis, Indiana 46207
1-800-622-4792
(317) 842-4151

Iowa
Medicare/Blue Shield of Iowa
636 Grand
Des Moines, Iowa 50309
1-800-532-1285
(515) 245-4784

Kansas
Counties of: Johnson, Wyandotte
Medicare/Blue Shield of Kansas City
P.O. Box 169
Kansas City, Missouri 64141
1-800-892-5900
(816) 561-0900
Rest of State: Medicare/Blue Shield of Kansas
P.O. Box 239
Topeka, Kansas 66601
1-800-432-3531
(913) 232-3773

Kentucky
Medicare - Part B
Blue Cross and Blue Shield of Kentucky
100 East Vine Street
Lexington, Kentucky 40507
1-800-432-9255
(606) 233-1441

Louisiana
Blue Cross and Blue Shield of Louisiana
Medicare Administration
P.O. Box 95024
Baton Rouge, Louisiana 70895-9024
1-800-462-9666
(in New Orleans) (504) 529-1494
(in Baton Rouge) (504) 272-1242

Maine
Medicare/Blue Shield of Massachusetts/Tri-State
P.O. Box 1010
Biddeford, Maine 04005
1-800-492-0919

Maryland
Counties of: Montgomery, Prince Georges
Medicare/Pennsylvania Blue Shield
P.O. Box 100
Camp Hill, Pennsylvania 17011
1-800-233-1124
Rest of State:
Maryland Blue Shield, Inc.
700 East Joppa Road
Towson, Maryland 21204
1-800-492-4795
(301) 561-4160

Massachusetts

Medicare/Blue Shield of Massachusetts, Inc.
55 Accord Park Drive
Rockland, Massachusetts 02371
1-800-882-1228

Michigan

Medicare Part B
Michigan Blue Cross and Blue Shield
P.O. Box 2201
Detroit, Michigan 48231-2201
(in area code 313) 1-800-482-4045
(in area code 517) 1-800-322-0607
(in area code 616) 1-800-442-8020
(in area code 906) 1-800-562-7802
(in Detroit) (313) 225-8200

Minnesota

Counties of: Anoka, Dakota, Filmore, Goodhue, Hennepin, Houston, Olmstead, Ramsey, Wabasha, Washington, Winona
Medicare/The Travelers Insurance Co.
8120 Penn Avenue
South Bloomington, Minnesota 55431
1-800-352-2762
(612) 884-7171
Rest of State:
Medicare
Blue Shield of Minnesota
P.O. Box 64357
St. Paul, Minnesota 55164
1-800-392-0343
(612) 456-5070

Mississippi

Medicare/The Travelers Insurance Co.
P.O. Box 22545
Jackson, Mississippi 39225-2545
1-800-682-5417
(601) 956-0372

Missouri

Counties of: Andrew, Atchison, Bates, Benton, Buchanan, Caldwell, Carroll, Cass, Clay, Clinton, Daviess, DeKalb, Gentry, Grundy, Harrison, Henry, Holt, Jackson, Johnson, Lafayette, Livingston, Mercer, Nodaway, Pettis, Platte, Ray, St. Clair, Saline, Vernon, Worth
Medicare/Blue Shield of Kansas City
P.O. Box 169
Kansas City, Missouri 64141
1-800-892-5900
(816)561-0900
Rest of State: Medicare
General American Life Insurance co.
P.O. Box 505
St. Louis, Missouri 63166
1-800-392-3070
(314) 843-8880

Montana

Medicare/Blue Shield of Montana, Inc.
2501 Beltview
P.O. Box 4310
Helena, Montana 59604
1-800-332-6146
(406) 444-8350

Nebraska

See note at the end of this listing.

Nevada

Medicare/Aetna Life and Casualty
P.O. Box 37230
Phoenix, Arizona 85069
1-800-528-0311

New Hampshire

Medicare
Blue Shield of Massachusetts/Tri-State
P.O. Box 1010
Biddeford, Maine 04005
1-800-447-1142

New Jersey
See note at the end of this listing

New Mexico
Medicare/Aetna Life and Casualty
P.O. Box 25500
Oklahoma City, Oklahoma 73125-0500
1-800-423-2925
(in Albuquerque) (505) 843-7771

New York
Counties of: Bronx, Kings, New York, Richmond
Medicare/Empire Blue Cross & Blue Shield
P.O. Box 100
Yorktown Heights, New York 10598
(212) 490-4444
Counties of: Columbia, Delaware, Dutchess, Greene, Nassau, Orange, Putnam, Rockland, Suffolk, Sullivan, Ulster, Westchester
Medicare/Empire Blue Cross & Blue Shield
P.O. Box 100
Yorktown Heights, New York 10598
1-800-442-8430
County of: Queens
Medicare/Group Health, Inc.
P.O. Box A966, Times Square Station
New York, New York, 10036
(212) 760-6790
Rest of State: Medicare
Blue Shield of Western New York
P.O. Box 0600
Binghamton, New York 13902-0600
(607) 772-6906
1-800-252-6550

North Carolina
See note at the end of this listing

North Dakota
Medicare/Blue Shield of North Dakota
4510 13th Avenue, S.W.
Fargo, North Dakota 58121-0001
1-800-247-2267
(701) 282-1100

West Virginia
Medicare/Nationwide Mutual Insurance Co.
P.O. Box 57, Columbus, Ohio 43216
1-800-848-0106

Wisconsin
Medicare/WPS
Box 1787
Madison, Wisconsin 53701
1-800-362-7221
(in Madison) (608) 221-3330
(in Milwaukee) (414) 931-1071

Wyoming
Equicor, Inc.
P.O. Box 628
102 Indian Hills Shpg. Cntr.
Cheyenne, Wyoming 82003
1-800-442-2371
(307) 632-9381

American Samoa
Medicare/Hawaii Medical Services Assn.
818 Keeaumoku
Honolulu, Hawaii 96808
(808) 944-2247

Guam
Medicare/Aetna Life and Casualty
P.O. Box 3947
Honolulu, Hawaii 96812
(808) 524-1240

Northern Mariana Islands
Medicare/Aetna Life and Casualty
P.O. Box 3947
Honolulu, Hawaii 96812
(808) 524-1240

Puerto Rico/Virgin Islands
Medicare/Seguros De Servicio De Salud De Puerto Rico
Call Box 71391
San Juan, Puerto Rico 00936
137-800-462-7385 (Puerto Rico)
137-800-462-2970 (Virgin Islands)
(809) 759-9191

Special Notice for Georgia, Nebraska, New Jersey, and North Carolina

Georgia
Through 12/31/88 only, your carrier is:
The Prudential Insurance Co. of America
Medicare Part B
P.O. Box 546
Buford, Georgia 30518
1-800-241-3081
(404) 945-1401
After 12/31/88 you will be notified by mail of new carrier address

Nebraska
Through 11/30/88 only, your carrier is:
Medicare/Blue Shield of Iowa
P.O. Box 10479
Des Moines, Iowa 50306
1-800-633-1113
(402) 397-9182
After 11/30/88 your carrier will be:
Medicare Part B
Blue Cross and Blue Shield of Nebraska
P.O. Box 3106
Omaha, Nebraska 68103-0106
1-800-633-1113

New Jersey
Through 12/31/88 only, your carrier is:
Medicare
The Prudential Insurance Co. of America
P.O. Box 3000
Linwood, New Jersey 08221
1-800-462-9306
After 12/31/88 you will be notified by mail of new carrier address

North Carolina
Through 11/30/88 only, your carrier is:
The Prudential Insurance Co. of America
Medicare B Division
P.O. Box 2126
High Point, North Carolina 27261
1-800-672-3071
(919) 884-3400
After 11/30/88 your carrier will be:
Equicor, Inc.
P.O. Box 671
Nashville, Tennessee 37202
1-800-672-3071

D. MEDICARE PROS

Alabama
Alabama Quality Assurance Foundation
236 Goodwin Crest Drive
Twin Towers East Building, Suite 300
Birmingham, AL 35209
1-800-554-5946
(205) 942-0785

Alaska
Professional Review Organization for Washington
Suite 204
J0 West 41st Street
Anchorage, AK 99503
1-800-445-6941
(907) 562-2252

Arizona
Health Services Advisory Group, Inc.
Suite B-157
301 East Bethany Home Road
Phoenix, AZ 85012
1-800-626-1577
(602) 264-6382

Arkansas
Arkansas Foundation for Medical Care, Inc.
P.O. Box 1508
809 Garrison Avenue
Fort Smith, AR 72902
(501) 785-2471

California
California Medical Review, Inc.
Suite 1100
1388 Sutter Street
San Francisco, CA 94109
1-800-841-1602
(415) 923-2000

Colorado
Colorado Foundation for Medical Care
Suite 400, Building 2
6825 East Tennessee Avenue
Denver, CO 80224
(303) 321-8642

Connecticut
Connecticut Peer Review Organization, Inc.
384 Pratt Street
Meriden, CT 06450
(203) 237-2773

Delaware
West Virginia Medical Institute-Delaware PRO
Independence Mall
Suite 92-100
1601 Concord Pike
Wilmington, DE 19803
(302) 655-3077

District of Columbia
Delmarva Foundation for Medical Care, Inc.
Suite 250
650 Pennsylvania Avenue, SE
Washington, DC 20006
(202) 675-4612
(301) 822-0697

Florida
Professional Foundation for Health Care, Inc.
Suite 100
2907 Bay to Bay Boulevard
Tampa, FL 33629
1-800-634-6280
(813) 831-6273

Georgia
Georgia Medical Care Foundation/PRO
Suite 1300
4 Executive Park Drive, NE
Atlanta, GA 30329
1-800-282-2614
(404) 982-6500

Guam and American Territories
Fiscal Intermediary
Hawaii Medical Services Association
P.O. Box 860
Honolulu, HI 96808
(808) 944-3586

Source: Kinoy, Anderson, and Sherry, 1988. Reprinted with permission of the Families U.S. A. Foundation.

Hawaii
Fiscal Intermediary
Hawaii Medical Services Association
P.O. Box 860
Honolulu, HI 96808
(808) 944-3586

Idaho
Professional Review Organization for Washington
Idaho Division
Pacific Empire Building
815 Park Boulevard
Boise, ID 83706
(208)343-4617

Illinois
Crescent Counties Foundation for Medical Care
350 Shuman Boulevard
Suite 240
Naperville, IL 60540
1-800-647-8089
(312) 357-8770

Indiana
Peerview, Inc.
Suite 200
501 Congressional Boulevard
Carmel, IN 46032
1-800-647-8089
(317) 573-6888

Iowa
Iowa Foundation for Medical Care
Colony Park
3737 Woodland Avenue
Suite 500
West Des Moines, IA 50265
1-800-372-9676
(515)223-2900

Kansas
The Kansas Foundation for Medical Care, Inc.
2947 SW Wanamaker Drive
Topeka, KS 66614
(913) 273-2552

Kentucky
Peerview, Inc.
Suite 309
213 Whittington Parkway
Louisville, KY 40222
1-800-423-6512
(502) 429-09955

Louisiana
Louisiana Health Care Review
9357 Interlinee Avenue
Suite 200
Baton Rouge, LA 70809
(504) 926-6353

Maine
Health Care Review, Inc.
51 Broadway
Bangor, ME 04401
1-800-247-9770
(207) 945-0244

Maryland
Delmarva Foundation for Medical Care, Inc.
341-B North Aurora Street
Easton, Md 21601
1-800-247-9770
(301)822-0697

Massachusetts
Massachusetts Peer Review Organization, Inc.
300 Bearhill Road
Waltham, MA 02254
1-800-228-3297
(617)890-0011

Michigan
Michigan Peer Review Organization
40500 Ann Arbor Road
Suite 200
Plymouth, MI 48170
(313)459-0900

Minnesota
Foundation for Health Care Evaluation
Suite 700
One Appletree Square
Minneapolis, MC 55420
1-800-462-5340
(612)854-3306

Mississippi
Mississippi Foundation for Medical Care, Inc.
P.O. Box 4665
1900 North West Street
Jackson, MS 39216
1-800-222-5425
(601)948-8894

Missouri
Missouri Patient Care Review Foundation
311 Ellis Boulevard
Suite A
Jefferson City, MO 65101
1-800-654-1016
(314)634-4441

Montana
Montana-Wyoming Foundation for Medical Care
Placer Center, #201
Helena, MT 59604
1-800-332-3411
(406)443-4020

Nebraska
Suderbruck Corp. of Nebraska
Suite 700 CTU Building
1221 N Street
Lincoln, NB 68508
(402)474-7471

Nevada
Nevada Physicians Review Organization
Building A, Suite 108
4600 Kietzke Lane
Reno, NV 89502
1-800-588-0829
(702)826-1996

New Hampshire
New Hampshire Foundation for Medical Care
P.O. Box 578
100 Locust Street
Dover, NH 03820
1-800-582-7174
(603)749-1641

New Jersey
The Peer Review Organization of New Jersey, Inc.
Central Division
Brier Hill Court, Building J
East Brunswick, NJ 08816
(201)238-5570

New Mexico
New Mexico Medical Review Association
707 Broadway, NE
Suite 200
Albuquerque, NM 87106
1-800-432-6824
(505)842-6236

New York
Empire State Medical Scientific and Education Foundation, Inc.
420 Lakeview Road
Lake Success, NY 11042
1-800-331-7767
(505)437-8134

North Carolina
Medical Review of North Carolina
Suite 200
P.O. Box 37309
1011 Schaub Drive
Raleigh, NC 27627
1-800-682-2650
(919) 851-2955

North Dakota
North Dakota Health Care Review, Inc.
301 Mount Vernon Building
900 North Broadway
Minot, ND 58701
1-800-472-2902
(701)852-4231

Ohio
Peer Review Systems, Inc.
Suite 250
3700 Corporate Drive
Columbus, OH 43229-4996
1-800-233-7337
(614)895-9900

Oklahoma
Oklahoma Foundation for Peer Review, Inc.
5801 Broadway Extension
Suite 400
The Paragon Building
Oklahoma City, OK 73118
(405) 840-2891

Oregon
Oregon Medical Professional Review Organization
Suite 300
1220 Southwest Morrison
Portland, OR 97205
1-800-452-1250
(503)243-1151

Pennsylvania
Keystone Peer Review Organization, Inc.
645 N. 12th Street
P.O. Box 618
Lemoyne, PA 17043
(717) 975-9600

Puerto Rico
Puerto Rico Foundation for Medical Care
Suite 605
Mercantile Plaza
Hato Ray, PR 00918
(809)753-6705

Rhode Island
Health Care Review, Inc.
The Weld Building
345 Blackstone Boulevard
Providence, RI 02906
(401)331-6661

South Carolina
Metrolina Peer Review Foundation
3000 Charlotte Town Center
Charlotte, NC 28204
1-800-843-0130
(704)373-1545

South Dakota
South Dakota Foundation For Medical Care
608 West Avenue, North
Sioux Falls, SD 57104
(605)336-3505

Tennessee
Mid-South Foundation for Medical Care
Suite 400
6401 Poplar Avenue
Memphis, TN 38119
1-800-873-2273
(901)682-0381

Texas
Texas Medical Foundation
Suite 200
901 Mopac Expressway South
Austin, TX 78746
1-800-252-9216
(512)329-6610

Utah
Utah Professional Standard Review Organization
Suite 200
540 East 5th South Street
Salt Lake City, UT 84102
(801) 532-7545

Vermont
New Hampshire Foundation for Medical Care
P.O. Box 578
100 Locust Street
Dover, NH 03820
1-800-582-7174
(603)749-1641

Virgin Islands
Virgin Islands Medical Institute
P.O. Box 1556
Christiansted
St. Croix, U.S., VI 00820
(809)778-6470

Virginia
Medical Society of Virginia Review Organization
Room 120
1904 Byrd Avenue
P.O. Box 6569
Richmond, VA 23230
1-800-533-1745
(804)289-5320

Washington
Professional Review Organization for Washington
Suite 200
2150 North 107th Street
Seattle, WA 98133
1-800-233-5439 (residents)
1-800-445-6941 (out of state)
(206)364-9700

West Virginia
West Virginia Medical Institute, Inc.
3412 Chesterfield Avenue, SE
Charleston, WV 25304
1-800-642-8686
(304)925-0461

Wisconsin
Wisconsin Peer Review Organization
2001 W. Beltline Highway
Madison, WI 53713
1-800-362-2320
(608)274-1940

Wyoming
Montana-Wyoming Foundation for Medical Care
P.O. Box 5117
21 North Main
Helena, MT 59601
1-800-826-8978
(406)443-4020

E. MEDICARE PUBLICATIONS

Guide to Health Insurance for People with Medicare (529T)

Discusses what Medicare pays and does not pay, types of private health insurance to supplement Medicare and hints on shopping for private insurance. (HCFA-02110)

Thinking of Having Surgery? (553T)

Explains the importance of getting a second opinion for non-emergency surgery, Medicare coverage of costs, and gives a toll-free number for locating specialists in your area. (HCFA-02114)

Medicare and Prepayment Plans (574T)

Describes the health services available to beneficiaries from Medicare-certified HMOs and CMPs. (HCFA-02143)

Medicare and Employer Health Plans (609T)

Explains the law which requires employers to offer employees age 65 and older the same health insurance they offer their younger employees. (HCFA-02150)

Hospice Benefits Under Medicare (610T)

Describes the scope of Medical and support services available to Medicare beneficiaries with terminal illness. (HCFA-02154)

Medicare Coverage of Kidney Dialysis and Kidney Transplant Services: A Supplement to Your Medicare Handbook (611T)

Describes Medicare benefits for people with chronic kidney disease. (HCFA-10128)

Contact: Consumer Information Center
Department 59
Pueblo, CO 81009

F. GLOSSARY OF MEDICARE-RELATED TERMS

Actual Charge -- the amount a physician or supplier actually bills a patient for a particular medical service or supply. (This may differ from the customary, prevailing, and/or reasonable charges under Medicare.)

Assignment -- a process through which a doctor or supplier agrees to accept the Medicare program's payment as payment in full except for specific coinsurance and deductible amounts required of patient.

Carrier -- a private insurance organization which contracts with the Federal government to handle claims from doctors and suppliers of services covered by Medicare medical insurance.

Claim -- a request to a carrier or intermediary by a beneficiary or a provider acting on behalf of a beneficiary for payment of benefits under Medicare.

Coinsurance -- a cost-sharing requirement which provides that a beneficiary will assume a portion or percentage of the costs of covered services.

Competitive Medical Plan (CMP) -- a prepayment health care plan. CMPs with Medicare contracts offer Medicare beneficiaries all services covered by fee-for-service Medicare.

Customary Charge -- the amount which a doctor or supplier most frequently charges for each separate service and supply furnished.

Deductible -- the amount of expense a beneficiary must first incur before Medicare begins payment for covered services.

Health Maintenance Organization (HMO) -- a prepayment health care plan. HMOs with Medicare contracts offer Medicare beneficiaries all services covered by fee-for-service Medicare.

Home Health Agency -- a public or private organization that specializes in giving skilled nursing services and other therapeutic services such as physical therapy in a beneficiary's home.

Hospice -- a program operated by a public agency or private organization which engages primarily in providing pain relief, symptom management, and supportive services for terminally ill people and their families.

Hospital Insurance -- the Part of Medicare which helps pay for inpatient hospital care, some inpatient care in a skilled nursing facility, home health care, and hospice care.

Intermediary -- a private insurance organization which contracts with the Federal government to handle Medicare payment for services by hospitals, skilled nursing facilities, and home health agencies paid through the hospital insurance program.

Source: Medicare Handbook of 1989.

Medical Insurance -- the part of Medicare which helps pay for medically necessary doctor's services, outpatient hospital services, and a number of other medical services and supplies that are not covered by the hospital insurance part of Medicare as well as some home health services.

Medigap Policy -- private health insurance designed to supplement Medicare.

Outpatient Facility -- a facility designed to provide health and medical services to individuals who are not inpatients.

Participating Physician or Supplier -- a physician or supplier who agrees to accept assignment on all Medicare claims.

Peer Review Organizations (PROs) -- groups of practicing doctors and other health care professionals under contract to the Federal government to review the care provided to Medicare patients.

Prepayment Health Plans -- Health care providers such as Health Maintenance Organizations (HMOs) and Competitive Medical Plans (CMPs).

Prevailing Charge -- Based upon the customary charges for covered medical insurance services or items, the prevailing charge is the maximum charge Medicare can approve for any item or service.

Prospective Payment System -- a process started in 1983 under which hospitals are paid fixed amounts based on the principal diagnosis for each Medicare hospital stay.

Quality Review Organizations (QROs) -- groups of practicing doctors and other health care professionals under contract to the Federal government to review the care provided to Medicare patients.

Reasonable Charges -- amounts approved by the Medicare carrier which will be either the customary charge, the prevailing charge, or the actual charge, whichever is the lowest.

Skilled Nursing Facility -- a Specially qualified facility which has the staff and equipment to provide skilled nursing care or rehabilitation services and other related health services.

Supplemental Health Insurance -- also called "Medigap" insurance -private health insurance designed to fill some of the gaps in Medicare.

VII. Readings

Service Use and Costs for Medicare Beneficiaries in Risk-based HMOs and CMPs: Some Interim Results from the National Medicare Competition Evaluation

LOUIS F. ROSSITER, PHD, LYLE M. NELSON, PHD, AND KILLARD W. ADAMACHE, PHD

Abstract: The Health Care Financing Administration (HCFA) initiated the Medicare Competition Demonstrations in 1982 in anticipation of congressional intent to establish a national program. Interim results on the 1984 service use and cost experience of the health maintenance organizations (HMOs) and competitive medical plans (CMPs) participating in the demonstrations indicate that Medicare enrollees in the demonstration experienced a median of 1,951 hospital days per 1,000 person years, 57 per cent of the median of 3,432 days per 1,000 in the local markets from which the plans drew enrollment. Independent practice association (IPA) HMOs experienced higher hospital use rates than staff and group model HMOs. These comparisons are not adjusted for various risk factors, the absence of which were likely to favor the demonstration plans. Plans with lower hospital service use were federally qualified and had been operating for more than five years.

The median total annual revenue per enrollee across all plans was $2,312, compared to median annual expenses per enrollee of $2,250. The distribution of median annual expenses per enrollee by major category of expense was: institutional expenses ($1,038/enrollee), medical expenses ($720/enrollee), supplemental services expenses ($154/enrollee), and administrative and other expenses ($295/enrollee).

Future analysis, using beneficiary-level data, will examine the impact of the demonstration and the nature and extent of evident biased selection and will compare the qualityof care in the demonstrations to that in the fee-for-service sector. (*Am J Public Health* 1988; 78:937–943.

Introduction

The federal government's search for new strategies to bring Medicare costs under control has led to the implementation of a national program of risk-based contracts with health maintenance organizations (HMOs) and competitive medical plans (CMPs) under the provisions of the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA).[1] At the end of 1986, 151 risk-based plans participated in the new program, enrolling 870,000 beneficiaries in 33 states and growing at an annual rate of 20 per cent.* Prior to the initiation of the national program in April 1985, the Health Care Financing Administration (HCFA) had established experimental risk-based contracts with 27 demonstration plans in 13 cities.[2] The key feature of the demonstrations was the willingness of participating plans to accept full responsibility and financial risk for providing Medicare-covered benefits to any Medicare beneficiary who applied.** It was assumed that risk-based enrollment would lower beneficiary service use and costs as compared to the fee-for-service sector.[3]

Using data reported by early demonstration plans for 1984, we present the first research results of the service use and cost experience of enrollees in Medicare risk-based plans compared to fee-for-service sector beneficiaries. The analysis is based on a relatively large selection of HMOs and CMPs from all regions of the country. Differences in service use and costs of Medicare risk-based beneficiaries are associated with the characteristics of the risk-based plans. Financial results, including average beneficiary costs for the demonstrations, also seem to be tied to HMO characteristics.

Review of HMO Literature

Nearly all studies on the use and cost of services in HMOs have focused on the experience of private sector enrollees.[4,5] Previous research indicates that the total costs of medical care (premiums plus out-of-pocket expenses) are lower for private HMO enrollees than for comparable persons covered by conventional insurance plans. The differential ranges from 0 to 40 per cent, depending on the characteristics of the HMO studied.

However, the factors that underlie these differences have not been fully explained beyond isolated cases. One issue explored in the literature is whether or not self-selection of enrollees explains the observed cost differentials. While studies have produced mixed results, the self-selection of enrollees into HMOs generally depends on two factors: first, self-selection is more likely to occur if the HMO premium, for comparable benefits, differs markedly from the available traditional insurance; and second, self-selection depends on whether or not joining the HMO requires severing existing relationships with fee-for-service providers.

Another issue is how HMO enrollment influences service use. Some literature indicates that there is a "start-up effect" associated with new enrollees in an HMO.[6–8] These studies found that new enrollees initially have high rates of service use, which declines as the length of membership in the plan increases. A review of the literature, then, suggests reasons to expect both lower and higher service use and costs for enrollees in Medicare HMOs as compared to fee-for-service Medicare.

Few studies have compared Medicare beneficiaries in HMOs to those in the fee-for-service sector in terms of service use and cost. Luft and Trieger, *et al*, reviewed these studies and found them marginally useful.[9,10] The HMOs were paid on a cost reimbursement basis rather than on a risk basis. In addition, the HMO enrollees retained their fee-for-service Medicare coverage for services rendered by outside

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Editor's Note: See also related editorial p 899 this issue.

*Office of Prepaid Health Care, HCFA, DHHS, Internal Correspondence, January 1987.

**Patients with end stage renal disease (ESRD) are excluded from risk-based enrollment unless ESRD occurred after enrollment.

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providers. Despite the absence of the risk feature, the studies found that total Medicare reimbursements were generally lower for beneficiaries enrolled in HMOs than for fee-for-service comparison groups.

In this study, we expect that the effect of risk-based plan enrollment and enrollee self-selection will work together to lower service use and costs among HMO enrollees as compared to fee-for-service.

Methods

Sources and Limitations of the Data

Plan-specific data on enrollment, use of Medicare-covered and supplemental services, revenues, and expenses were obtained from at least 21 of 27 HCFA demonstration plans as governed by the terms of their participation in Medicare Competition Demonstrations*** (see Appendix). Eighty-six quarterly reports were obtained for the calendar year 1984. The data were checked for internal consistency and compared, when possible, to other data obtained from site visits made between 1984 and 1985. Detected errors, omissions, or inconsistencies were resolved through telephone follow-up with the plans. A detailed summary of editing procedures and preparation of the data for analysis in the plans is described elsewhere.[14] The quality of the data was considered acceptable for the type of descriptive analysis performed. To quantify the data-quality issue, of the 84 total plan/quarters of data eligible in the study period (21 plans with four quarters each in 1984), four quarters were not applicable because the plans were not operational in the beginning of the year and only reported partial year data (less than four quarters). Only five quarters of data were missing. Two plans reported quarterly by location because they operated in different parts of the state, providing eight more quarters of data. Thus, the total number of quarters available for analysis was 83. Only three of the plans were not federally qualified, which is important because federally qualified plans must report service use and cost and financial results to the federal government. Thus, most plans had experience with the type of aggregate reporting form used in the evaluation. A further data quality issue was variation in plan assumptions for allocating expenses to their Medicare demonstration program—assumptions we were not able to fully verify or control for in the analysis.

The following definitions for data elements were adopted separately for demonstration enrollees and all other plan enrollees:

Enrollment: Enrollment figures were reported for the total number of individuals enrolled, the number of Medicare beneficiaries enrolled in the demonstration, and the number of Medicaid eligibles enrolled who were not also Medicare beneficiaries. Beneficiaries could have been enrolled at any time during the quarter. For each category of enrollment, the number of person-months was also obtained. Similar data were also obtained from HCFA for each plan by county of residence, age, sex, institutional status, and Medicaid eligibility. These data enabled us to verify the plan-reported enrollment data. Neither the plans nor HCFA maintain data on beneficiaries' race, income, or health status. As part of the evaluation, we surveyed a sample of beneficiaries to obtain more detailed data, but these results will not be released until fall 1988 by HCFA.

Service Use: Service use information includes: the number of hospital inpatient discharges and days; skilled nursing facility (SNF) discharges and days; home health visits; ambulatory medical visits; emergency room visits; audiology and eye examinations; hearing aids, eyeglasses and prescribed medicines; and dental office visits.

Medical Costs: Medical costs include all expenses incurred in the delivery of physician services, whether delivered directly by the plan or by any referral arrangement outside the plan. Delivery arrangements include encompassing referrals, emergency services, out-of-area services, and any other services.

Institutional Costs: Institutional costs include all expenses incurred for routine and ancillary services provided while in an acute care hospital, SNF, or intermediate care facility.

Supplemental Service Costs: These service costs include total expenses incurred for services normally not covered by Medicare, such as audiology and eye examinations; hearing aids; eyeglasses; prescribed medicines; and dental office visits.

Administrative and other Costs: These costs include expenses associated with general administration, marketing, member services, interest on debt, depreciation and amortization, and reinsurance. Methods of allocating these expenses between demonstration and all other enrollees may have differed among plans.

In addition to the plan-specific quarterly reports, data were also obtained during two- to three-day site visits to each plan. These site visits were conducted by senior members of the research team approximately six months after each plan began operating. Site visitors obtained information on various plan characteristics: organization form (group, staff, traditional independent practice association [IPA], network IPA), federal qualification status, and years of operation.

The data and results reported here are limited to an examination of descriptive evidence on service use and costs for demonstration enrollees and nonenrollees. Our research also obtained beneficiary-specific data on service use and costs for local-area enrollees, nonenrollees, and beneficiaries from a matched comparison group. Using a matched comparison group enabled us to adjust statistically for the potential biased selection of individuals into plans and to determine how the demonstrations affected service use and costs. The analysis of these data is not yet complete, but should be released by HCFA in the fall 1988.

For the plan quarterly reports, data were self-reported; no exhaustive audit of the completed forms was conducted. In fact, the financial results on the quarterly reports may have been taken from unaudited financial statements. The accounting assumptions may have varied by plan. When specific data were missing from some annual reports, values were imputed, using other complete quarterly reports for the same plan. Finally, the plans were at different stages of development because 1984 represented a start-up period in the Medicare market for most plans. The findings may not be representative of more mature plans.

The Descriptive Statistics

Because of the small number of observations in each cell, we did not statistically test the equivalence of use rates

***Of the six without data for the study period, some had only just started operation, and the remainder were not operational for the entire year. The 21 plans included are distributed in the four regions of the country, representing all model types of prepaid plans and comprising a distribution across HMO characteristics similar to the entire population of HMOs. For additional comments on the data base, see Adamache and Rossiter.[11]

across categories. Furthermore, because of the small cell sizes and the distorting effects that extreme values can have on the mean in such cases, we chose the median as the preferred measure of central tendency for this analysis. One very large demonstration plan accounted for over 100,000 of the 187,000 enrollment in 1984. So that no single plan would dominate the findings, the statistics were not weighted by plan size.

An Overview of Medicare Risk Contracts and Expected Findings

HCFA paid the demonstrations, and pays HMOs and CMPs, monthly under the national TEFRA-authorized program. This monthly payment, which is prospectively determined, equals 95 per cent of the adjusted average per capita cost (AAPCC). This figure represents the estimated actuarial equivalent cost to the Medicare program of providing Medicare-covered services to beneficiaries in the counties where the plan operates. The payment is adjusted to reflect the relative cost of beneficiaries in 30 different categories defined by age, sex, institutional status, and Medicaid program eligibility, which is based upon factors derived from national data. Other adjustments are used for those under age 55 who are entitled to Medicare by disability status.[12] The demonstrations were not restricted as to how they might use any surplus obtained from their Medicare risk contracts and were at full risk for any losses. On the other hand, the national TEFRA program limits the retention of surplus revenues. Otherwise, the two programs are similar.

Although it is illegal for plans to screen enrollees according to health status or to refuse to enroll anyone who wishes to join a plan (except end-stage renal disease patients), the incentives established by risk-based contracting encourages plans to enroll less costly beneficiaries within each AAPCC payment category. Thus, enrollees might be expected to have lower service use and costs. Plans are similarly encouraged to minimize unnecessary service use and costs after enrollment. They are also expected to minimize expenses by administrative review and control systems, such as utilization review, although these administrative systems also incur costs for the plans. As a result, the distribution of costs for enrollees is expected to shift away from high cost institutional services and toward ambulatory medical care and administrative services. The early site visits revealed that the plans added supplementary services to their coverage to attract beneficiaries to enroll.[13] Consequently, substitution of institutional and medical services toward supplementary services is expected.

In principle, the process of care under risk-based contracting eliminates unnecessary service use and costs and does not deny beneficiaries services below the medical norms in the community. It is argued that plan quality assurance procedures, the threat of disenrollment, and the threat of medical malpractice ensure quality of the process of care. The issue of quality of care is not addressed in this paper. However, it is being studied in another part of the overall evaluation through a detailed investigation of medical records for eight demonstrations. Results will be reported when the data have been collected and analyzed.

Results

Enrollment

Total Medicare risk-based demonstration enrollment at the end of 1984 had reached 187,260 beneficiaries, representing an annual growth of 19.6 per cent over 1983. As Table 1 shows, the plans tended to enroll a younger population,* one more likely to fall into the lower-risk AAPCC payment categories as compared to the national Medicare population.** Beneficiaries aged 65 to 74 were more heavily represented in the demonstration than national figures reflect. By comparison, the disabled and those 85 years and older were under-represented. Demonstration enrollees, compared to the national Medicare population, were much less likely to be institutionalized or on Medicaid.

TABLE 1—National Medicare Competition Evaluation: Per Cent Distribution of Demonstration Risk-based Plan Enrollees and National Medicare Population by AAPCC Demographic Characteristics, 1984*

Category	Percentage Distribution	
	Demonstration Enrollees as of December 1984	National Medicare Population
Age (years)		
<65 (disabled)	6.0	9.7
65–69	32.9	29.3
70–74	27.8	23.7
75–79	18.6	17.2
80–84	9.6	11.0
85+	5.0	9.1
Sex		
Male	47.6	42.4
Female	52.4	57.6
Medicaid Institutional Status		
Institutionalized	0.3	4.8
Noninstitutionalized, Medicaid	2.4	13.1
Noninstitutionalized, Non-Medicaid	97.4	82.1

*Source of data: See reference 14.
AAPCC = adjusted average per capita cost.

To compare the demographics of each demonstration plan's enrollment to the pool of beneficiaries in the local area (rather than to national averages), we constructed a demographic risk index for enrollment in each plan. The AAPCC system pays plans according to demographic cost factors, given the mix of enrollee demographics. Thirty demographic cost-factor cells for the aged and nondisabled are formed by cross-classifying the demographic variables shown in Table 1. Factors ranging from 0.6 to 2.6, with an approximate mean of one, are assigned to the 30 demographic cost-factor cells. These factors are used as multipliers to increase or decrease monthly payments according to the published AAPCC rate for any county. The amount of the payment depends upon the characteristics of each individual enrollee.

For this study, we averaged the demographic cost factors across the enrollees in each plan and, separately, across non-enrolled beneficiaries in each local market area to form demographic risk indices. Each index for a plan was compared to the correspondir g index for the market area. As previously discussed, enrollees tended to fall in lower risk categories, i.e., they tended to be younger and less likely to

*The age-sex distribution of the national Medicare poulation was based on data for 1983 and was obtained from Waldo and Lazenby[15] and HCFA Statistics, Bureau of Data Management and Strategy, September 1984.

**The reported distribution by Medicaid/institutional status refers to the beneficiary population aged 65 or over. The per cent institutionalized was obtained from University Health Policy Consortium, Brandeis University: A revised AAPCC formula for the S/HMO demonstration, a discussion paper presented in 1982 based on 1977 data. The distribution by Medicaid status is based on data reported by McMillan and Gornick.[16]

TABLE 2—National Medicare Competition Evaluation: Median Inpatient Hospital Service Use Rates for Medicare Beneficiaries* Enrolled in Demonstration Risk-Based Plans and Local Area Fee-for-Service Beneficiaries, by Plan Characteristics, 1984

Plan Characteristics	No. of Plans	Hospital Days/1,000 Person Years			Hospital Discharges/1,000 Person Years			Average Length of Stay		
		(1) Demonstration Enrollees	(2) Area FFS	(3) Ratio of (1) to (2)**	(4) Demonstration Enrollees	(5) Area FFS	(6) Ratio of (4) to (5)**	(7) Demonstration Enrollees	(8) Area FFS	(9) Ratio of (7) to (8)**
Plan Median	21	1,951	3,432	.57	269	383	.71	8.6	9.1	.81
Organizational Form										
Staff	7	1,873	3,898	.48	264	389	.68	6.6	9.4	.73
Group	3	1,951	4,016	.49	209	343	.61	9.3	10.6	.81
Mixed/Other	4	1,934	2,963	.65	230	342	.71	8.7	8.5	.99
Traditional Network IPA	7	2,779	3,504	.70	390	388	.92	7.1	9.0	.72
Federal Qualified										
Yes	19	1,935	3,432	.55	264	383	.69	8.7	9.0	.86
No	2	3,312	3,738	.88	466	378	1.23	8.6	9.0	.86
Years in Operation										
5 or less	5	2,443	3,431	.70	317	366	.87	8.7	9.4	.95
More than 5	16	1,901	3,450	.51	247	384	.67	8.1	9.1	.78
Profit Status										
For-profit	6	1,924	3,009	.58	223	341	.70	8.6	8.9	.95
Not-for-profit	15	1,951	3,898	.55	287	366	.72	7.9	9.5	.79

*For each category of plans shown, all service-use rates are medians of plan-specific rates of service use.
**Ratios for each category of plan shown are the median of ratios for individual plans in the category.
FFS = Fee-for-service

be Medicaid-eligible and institutionalized. We might expect the demographic risk index to be lower for the demonstration plans than the same index in their local area, unless local areas with Medicare risk-based plans have lower than average risks.

Only one plan had a demographic risk index exceeding that of its local market area. The index for each of the remaining plans was lower than the corresponding index for each plan's local market. The median plan index was 91.5 per cent of the median index for the local markets. The median plan demographic risk index was 0.808, compared to 0.889 for the local markets. The same index was approximately 1.000 for the national Medicare population. Thus, Medicare paid the plans less than they would have paid if enrollment had represented the demographic risk in the area. In fact, payment was 80.8 per cent of the national average cost, based upon the demographic risk index results, minus an additional 5 per cent because the payment is 95 per cent of the AAPCC payment. This discussion does not address the issue of biased selection. For selection to be biased, lower or higher than average risks must be enrolled *within* an AAPCC category.

Inpatient Hospital Service Use

Table 2 shows the use of hospital inpatient services for: 1) risk-based demonstration enrollees and (2) fee-for-service beneficiaries in counties where demonstration plans operated in 1984. Since our sources do not break down service use by age or sex, we cannot age-sex adjust the reported rates of hospital and other service use. Nevertheless, days per 1,000, discharges per 1,000, and average length of stay were all lower for demonstration enrollees. On the whole, service use for the median risk-based plan was 57 per cent of the local fee-for-service use for hospital days per 1,000; 71 per cent of admissions per 1,000; and 81 per cent of the average length of stay. Lower service use rates are not unexpected, given the lower demographic risk characteristics of the enrolled population indicated in the previous section. With a median hospital use rate of 2,779 days per 1,000 person years, the seven IPA-model HMOs experienced much higher use rates than the three group-model plans (1,951 days per 1,000), the seven staff model plans (1,873 days per 1,000), and four mixed/other model plans (1,934 days per 1,000). When plan use rates are measured against 1984 use rates in the fee-for-service sector of the local market area, the differences persist between IPA and group/staff plans, although the differences between IPA and mixed/other plans narrow considerably. Similar patterns can be observed for admissions and length of stay with the exception of the mixed/other model plans which nearly matched the fee-for-service for length of stay.

Categorization by federal qualification status and years of operation led to observed differences in measured service use. The 19 federally qualified plans had lower service use than the two non-federally qualified plans, and the 16 plans with more than five years of operation had lower service use than the five plans with fewer years of operation. Substantial differences in service use by profit status were not observed (Table 2).

Costs

Table 3 shows annual per-enrollee revenue and expenses. When plans had less than four quarters experience, or reported less than four quarters experience, annual estimates were imputed.[14] The median total revenue (including risk-based payments for Medicare, deductibles and copayments, and beneficiary premium revenues) was $2,312 per enrollee in 1984. Median total expenses per enrollee were $2,250. In terms of dollar value, the median plan had higher revenue than expenses. When expenses were subtracted from revenues to compute net revenues per enrollee for each plan, the median plan had −$5 in net revenues per enrollee, or 0.2 per cent of median total revenues. Although individual plan experience varied a great deal, this represents an approximate break-even figure. As shown in Table 3, staff-model HMOs fared worse than group-model plans. Federally qualified plans had higher net revenues than non-federally qualified; and fewer years of operation and for-profit status tended to be associated with higher net revenues.

Table 4 shows measures of central tendency and ranges

TABLE 3—National Medicare Competition Evaluation: Median Total Revenue, Total Expenses, and Net Revenue per Enrollee, by Plan Characteristics, 1984

Variables	No. of Plans	Total Revenues	Total Expenses	Net Revenue*
		Medians		
Plan Median	24	$2,312	$2,250	$ −5
Organizational Form				
Staff	7	2,448	2,724	−175
Group	3	2,195	2,177	191
Mixed/Other	4	2,050	2,039	11
Traditional/Network IPA	10	2,062	2,022	110
Federal Qualified				
Yes	21	2,378	2,271	6
No	3	1,919	2,099	−131
Years Operational				
5 years or less	7	2,586	2,724	228
6 years or more	17	2,182	2,229	−16
Profit Status				
For-Profit	6	2,325	2,272	14
Not-for-Profit	18	2,273	2,224	−45

*Net revenue (column 4) was calculated for each plan, and then the median was determined. Median net revenue cannot be directly calculated by subtracting the median expense (column 3) from median revenue (column 2) presented in the above table.

TABLE 4—National Medicare Competition Evaluation: Variation in Total Annual Expenses per Enrollee, Per Cent Distribution of Expenses, Total Revenue per Enrollee, and Net Revenue per Enrollee for Demonstration Risk-Based Plans, 1984*

	Mean	Median	Range	
			Low	High
Total Expenses per Enrollee	$2,340	$2,250	$ 743	$4,635
Expenses per Enrollee by:				
Type				
Medical	$ 743	$ 720	$ 353	$1,337
Institutional	1,088	1,038	98	2,845
Supplementary	213	154	9	1,530
Administrative & Others	453	295	74	1,719
Percentage Distribution of Expenses				
Medical	31.6%	31.1%	12.8%	48.7%
Institutional	42.3	44.7	8.7	61.9
Supplementary	7.1	5.5	1.0	13.3
Administrative & Other	19.0	12.7	3.5	53.1
Total Annual Revenue per Enrollee	$2,338	$2,312	$ 1,160	$3,531
Net Annual Revenue per Enrollee	−4	−5	−1,758	1,457

*Data for 24 of 27 demonstration plans reporting financial experience.

for key financial variables. The range of expenses was large, from $743 to $4,635 per enrollee. Contributing to the range of expenses observed are the health status of the enrollees in a plan, the stage of development of the plan, and how efficiently the plan provides services and holds down unnecessary service use.

The actual dollar amount and per cent distribution of expenses are shown in Table 4 by type of expense: medical, institutional, supplementary, administrative, and other. Here again, the dollar amount of expenses varies markedly. On the average, however, medical expenses were 31.6 per cent, hospital expenses 42.3 per cent, supplementary expenses 7.1 per cent, and administrative expenses 19.0 per cent of total expenses. Annual revenues per enrollee ranged from $1,160 to $3,531, and averaged about $2,300. Revenues vary for several reasons: the mix of enrollees, the AAPCC cells into

TABLE 5—National Medicare Competition Evaluation: Total Revenue, Total Expenses, and Net Revenue per Enrollee; and Per Cent Distribution Service Expenses by Type for Demonstration Risk-Based Plans and National Fee-for-Service Medicare Population, 1984

Type of Expense	Demonstration Plans*	National FFS Medicare Population**
	Percent Distribution	
Medical	31.6	22.7
Institutional	42.3	69.5
Supplementary	7.1	5.4
Administrative and Other	19.0	2.4

* Data for 24 of 27 demonstration plans reporting financial experience.
**See reference 17 for source.
FFS = Fee-for-service.

which enrollees fall, and whether the plan has premium or cost sharing provisions that generate plan revenue directly from beneficiaries.

Table 4 indicates the variation in net revenues, with extremes represented by one plan in each case. On the average, however, the plans were nearly at break-even level in terms of net revenues.

Table 5 compares the per cent distribution of expenses to the Medicare program nationally.[17] Medical expenses and administrative and other expenses were higher as a per cent of total expenses for the risk-based Medicare plans as compared to fee-for-service Medicare.*** Institutional expenses, primarily hospital plus long-term care expenses, were substantially lower on average for the risk-based plans as compared to fee-for-service Medicare. Supplementary expenses were somewhat higher for the risk-based plans as compared to fee-for-service Medicare. The mix of supplementary services is different from fee-for-service Medicare. In most cases, the demonstration expanded the coverage of non-Medicare covered services. For example, all but two plans had an option that covered drugs, either free or with a $2 to $5 copayment per prescription. Twelve plans offered free hearing examinations. Eight plans covered some dental services, such as cleaning and basic examinations. Prescribed medicines outside the hospital, vision examinations, eyeglasses, hearing examinations, and dental care are not covered by Medicare but are included in the plan expenses. Thus, higher supplemental expenses among the plans are expected.

Discussion

The purpose of Medicare risk-based contracting is to control unnecessary service use and reduce Medicare program costs while eliminating or reducing the federal government's risk for covered services. To meet this goal and be successful in the market, risk-based plans must change the traditional fee-for-service patterns of service use and enroll beneficiaries whose costs are accurately predicted by the payment system.

In 1984, enrollees in risk-based plans had lower inpatient hospital service use than fee-for-service beneficiaries in the

***This comparison excludes the administrative expenses for HCFA of managing the risk-based payments. This expense is minimal compared to the claims processing function associated with administering the fee-for-service Medicare program.

same counties served by risk-based plans. In addition, findings indicate a pronounced shift away from institutional costs of care and toward medical and administrative costs for risk-based enrollees as compared to the national Medicare fee-for-service program. The shift in costs may be transitory because most plans were just starting to operate. This paper has not addressed the extent to which several factors contribute to differences in service use and cost: the pure impact of enrollment in a managed care system like an HMO or CMP, the result of enrolling beneficiaries who are lower or higher risk compared to nonenrollees who remain in the fee-for-service sector, and changes in the process of care that would not be considered good quality care when compared to the process of care provided by the traditional fee-for-service Medicare program.

The lower levels of service use among enrollees as compared to nonenrollees are likely to be both the effect of being enrolled in a risk-based plan and enrollee selection. An impact on service use is likely because nearly all studies of HMOs for the under-65 population show an HMO influence on institutional service use. Nevertheless, data presented in this study indicate that demonstration plans as a group do not enroll from demographic risk categories in the same proportion as does the fee-for-service sector. The payment formula adjusts for the type of selection represented by the demographic characteristics described in this study, so the selection represented here may not be an issue. But the Medicare program overpays (or underpays) the plans when enrollment is systematically biased toward low risks (or high risks) in a way that is not accounted for in the payment system.

The shift toward a larger share of administrative costs for the risk-based plans is probably linked to a number of factors. Some plans engage in extensive marketing, including nationally known spokespersons, media advertising, and staffs of paid plan representatives. Marketing costs are included in the administrative costs shown and may explain the shift toward higher administrative costs. The utilization review and quality assurance functions adopted by plans also can increase administrative costs. The costs of entering the Medicare market and starting to serve the Medicare population also are apparent, and nearly all the plans represented here were in the start-up phase.

The higher administrative costs observed in 1984 may be unique and may not be representative of mature plans with a stable population of Medicare enrollees. We conducted case studies and site visits to the plans examined in this paper and suspect that roughly half of the higher administrative costs are attributable to start-up and expansion activities as the plans entered the Medicare market. The 19.0 per cent of expenses attributable to administration is likely to decline as the plans mature. However, these expenses will probably continue to be a multiple of the Medicare program fee-for-service administrative cost experience, as a per cent of the total. This issue deserves further monitoring as the plans grow in number and mature under the provisions of TEFRA. While risk-based contracting will likely reduce administrative costs for the Medicare program central office—the claims processing function is essentially eliminated—our results suggest that administrative costs may increase at other levels. This possible increase might affect Medicare program costs. Studies have yet to determine whether or not the impact on Medicare program costs results from plan effects, biased selection, or unwanted changes in the process of care compared to the fee-for-service sector. Upcoming reports from the National Medicare Competition Evaluation will examine these issues, reporting on individual levels of service use and cost data.

ACKNOWLEDGMENTS

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REFERENCES

1. Federal Register: Department of Health and Human Services—42, CFR Parts 405 and 417, Medicare Program, Payment to Health Maintenance Organizations and Competitive Medical Plans, Final Rules, 1985; 50,7: Part IV, 1314–1418.
2. Langwell K, *et al*: Medicare HMOs: Early experience of health maintenance organizations under Medicare competition demonstrations. Health Care Fin Rev Summer 1987; 8,3:37–56.
3. Federal Register, *op. cit.*, 1339.
4. Luft HS: Health maintenance organizations: dimensions of performance. New York: Wiley-Interscience, 1981.
5. Manning WG, *et al*: A controlled trial of the effect of a prepaid group practice on use and services. N Engl J Med 1984; 310:1505–1510.
6. Baloff N, Mary JG: Policy implications of startup utilization by enrollees in prepaid group plans. Health Serv Res 1984; 19,1:23–40.
7. Griffith MJ, Baloff N: Membership duration and utilization rates in a prepaid group practice. Med Care 1981; 19:12,1194–1210.
8. Yesalis CE, Bonnet PD: The effect of duration of membership in a prepaid group health plan on the utilization of services. Med Care 1976; 14:1024.
9. Luft HS, *op. cit.*, 268–272.
10. Trieger S, Galblum T, Riley G: HMOs: Issues and Alternatives for Medicare and Medicaid. Baltimore: HCFA, Office of Research, Demonstrations, and Statistics, 1981.
11. Adamache KW, Rossiter L: The entry of HMOs in the Medicare market: Implications for TEFRA's mandate. Inquiry 1986; 23:349–364.
12. Kunkel S, Powell C: The adjusted average per capita cost under risk contracts with providers of health care. Transactions 1981; 33:221–230.
13. Langwell K, *et al*: HMOs in the Medicare market. Medical Group Management 1986/1987; 33,6:31–45.
14. Nelson L, Rossiter L, Adamache K: A Preliminary Analysis of the Use and Cost of Services: Aggregate HMO Data. Baltimore: HCFA, Contract 500-83-0047, 1986.
15. Waldo D, Lazenby H: Demographic characteristics and health care use and expenditures by the aged in the US: 1977–1984. Health Care Fin Rev Fall 1984; 6:1–30.
16. McMillan A, Gornick M: The dually entitled elderly Medicare and Medicaid population living in the community. Health Care Fin Rev 1984; 6:73–86.
17. Levit KR, *et al*.: National health expenditures, 1984. Health Care Fin Rev 1985; 7,1:1–35.

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Who can afford

This year, 2.3 million of the nation's elderly will be living in a nursing home. Three decades from now that number will nearly double. A year in a nursing home now costs on average $22,000 or more. By the year 2018, it will cost about $55,000 if inflation stays at recent moderate rates.

Who will pay the bill?

Medicaid, the Federal program that finances health services for the poor, paid half of the $38-billion that went into nursing-home care in 1986. Most people aren't poor when they enter a nursing home, but they become poor soon after.

The other half of the $38-billion came out of the pockets of nursing-home residents or of their children, who often find themselves squeezed between the financial needs of their own family and the burden of caring for aged parents.

Contrary to popular belief, Medicare, the Federal program that provides health care for the aged, pays only a tiny fraction of the cost of nursing-home care.

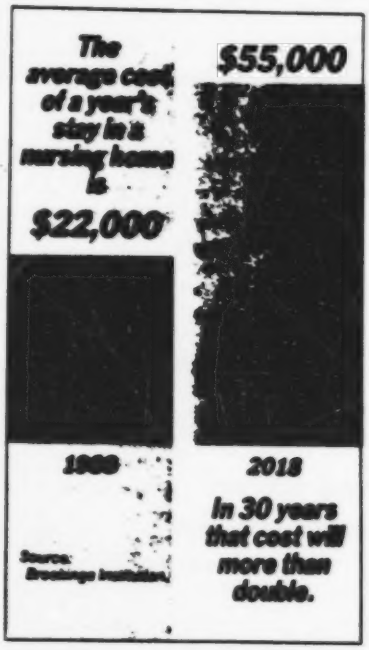
The Reagan Administration believes that the Federal government has no role to play in providing long-term care unless you're poor. The nonpoor, it tells us, should look to private insurance companies for protection against the potentially devastating financial consequences of a prolonged stay in a nursing home. As a result, long-term-care insurance policies, unknown until a few years ago, have proliferated. Currently, some 70 companies, ranging from familiar giants like Aetna and John Hancock to lesser-known firms like Reserve Life and Pilgrim Life, have entered the field. For this report, we analyzed 53 of their policies.

We'd like to report that private insurance policies can meet the increasingly urgent need for long-term-care coverage at a moderate cost. But many of the insurance policies we looked at were very expensive, severely limited in their coverage, or both. People who buy them at age 65 may have to pay as much as $100 a month for adequate coverage. People who try to shop for them will run into a crazy quilt of charges, waivers, and limitations that confuses even the insurance agents who sell the policies.

Defining the policy

Simply stated, long-term-care insurance pays a set amount each day for a specified period of time that a policyholder stays in what's called a "covered nursing facility." Unlike other kinds of health insurance, these policies usually don't reimburse the policyholder for fees actually charged. The fixed benefit is one major drawback of nearly all such policies. Should you buy a policy today and enter a nursing home 10 years from now, you may find that the benefit pays a much smaller part of the actual cost than you thought it would at the time you bought the policy. Only a few policies offer a rider that adjusts the benefit annually for inflation.

Furthermore, you'll find huge differences in dollar benefits, in definitions of covered nursing facilities, in the length of time benefits are paid, in limitations on coverage, and in eligibility for benefits. Those differences are spelled out in the Ratings on page 304.


The average cost of a year's stay in a nursing home is
$22,000
$55,000
1988
2018
In 30 years that cost will more than double.
Source: Brookings Institution

Charts by Connie Abbate Hekker

Type of facility covered

There are three types of long-term-care facility: skilled, intermediate, and custodial. A policy may or may not cover care in all three types, and different policies may define the three types of facility differently. In general, the definitions are the following:

Skilled nursing. Such care must be prescribed by a doctor, given by a skilled nurse, and be available for 24 hours a day. These facilities are licensed by the state, and daily medical records are kept on each patient.

Intermediate. In such facilities, care may require the skills of a nurse, but the level of care is somewhat less than that given in a skilled-care facility. For example, a nurse may be on hand only to give patients injections or to change their bandages. The facility may be licensed and may provide post-hospital and rehabilitative nursing care.

Custodial. Care here means helping a person with such routine activities as getting out of bed, walking, eating, and bathing. It may be given by people without professional skills or training, but some insurance policies may require that the facility be licensed.

The best policies pay benefits for all three kinds of care in all three types of facility. Buy less than the best, and you may discover that your insurance doesn't cover the type of care you require.

Note that policies can imply coverage where none exists. For example, a policy might provide coverage for all three *types* of care, but require that the care be given in only *one* type of facility, such as a nursing home that provides skilled care.

Custodial care is sometimes covered only if it is provided in a skilled- or intermediate-nursing facility. Some policies pay no benefits for custodial care, no matter where it's given. That's a major deficiency. Very few people need skilled care for long periods; much of the care in nursing homes is of the intermediate or custodial variety. Stroke victims, in particular, often require a long period of custodial care while recovering.

Qualifying for benefits

Most policies require beneficiaries to be hospitalized for at least three days before

Illustrations by Peico

...a nursing home?

they enter a nursing home. And usually the nursing home must continue to provide care for the illness or condition that put the individual in the hospital.

Furthermore, the person must check into the nursing home within a certain period after checking out of the hospital. That period is usually 30 days, but it can be as short as 14 days or as long as 90 days. These rules can limit the usefulness of the insurance. Such debilitating conditions as arthritis and Alzheimer's disease usually do not require hospitalization. Only about 40 percent of all nursing-home patients check in after a hospital stay.

A few policies do not demand a hospital stay before paying benefits for long-term care. But the companies that issue them, including Blue Cross/Blue Shield and Metropolitan Life, do retain the power to decide who is eligible for benefits. Some companies, including MidAmerica and Continental Casualty, offer buyers a choice of policies with and without "prior-hospitalization" rules. Of course, the ones without these rules generally cost more.

We found nine policies free of either the prior-hospitalization rule or the company's veto of a policyholder's eligibility for nursing-home coverage.

Other restrictions may stand in the way of custodial care, which is potentially the longest-lasting and hence the most costly type of care. John Hancock's individual policy, for example, pays for care in a custodial facility only after 14 continuous days of skilled-nursing care. Aetna pays for a policyholder's first stay in a custodial facility only after a stay in either a skilled or an intermediate-care facility.

What's not covered?

No policy pays benefits for stays in rest homes or old-age homes. Nor do they pay for stays in mental hospitals or alcohol and drug rehabilitation centers. Most significantly, long-term-care policies tend to limit benefits for existing health problems and for Alzheimer's disease, the very reasons people might seek coverage in the first place.

Most companies limit coverage for "preexisting conditions"—those illnesses or diseases a buyer has when the policy is issued. The preexisting-conditions clause acts as a gatekeeper, turning away those who want to buy the coverage because they know they need it. If a company does not have a preexisting-conditions clause, it usually retains the power to decide who's eligible for benefits.

Most policies define a preexisting condition as any health problem experienced by the policyholder in the six months prior to buying the policy. But a number of policies count back one to three years.

If the insurance company sells a policy to a person with such a preexisting condition, it sets a waiting period before coverage for that condition can begin. These periods range from six months to two years. So if a heart condition lands someone in a nursing home three months after the policy was issued, the company won't start paying benefits immediately.

Virtually all the policies exclude care for mental and nervous disorders. Does that include Alzheimer's disease, a debilitating condition that's diagnosed in about half of all nursing-home patients?

Although Alzheimer's is not specifically excluded, about half the policies we looked at said something like "we won't pay for confinements due to mental illnesses except those with demonstrable organic disease." Alzheimer's disease is a degenerative brain disease with symptoms that mimic those of mental illness. It's considered an organic disease and therefore would seem to be covered. But is it a *demonstrable* organic disease? Only a biopsy or an autopsy can confirm a diagnosis of Alzheimer's disease.

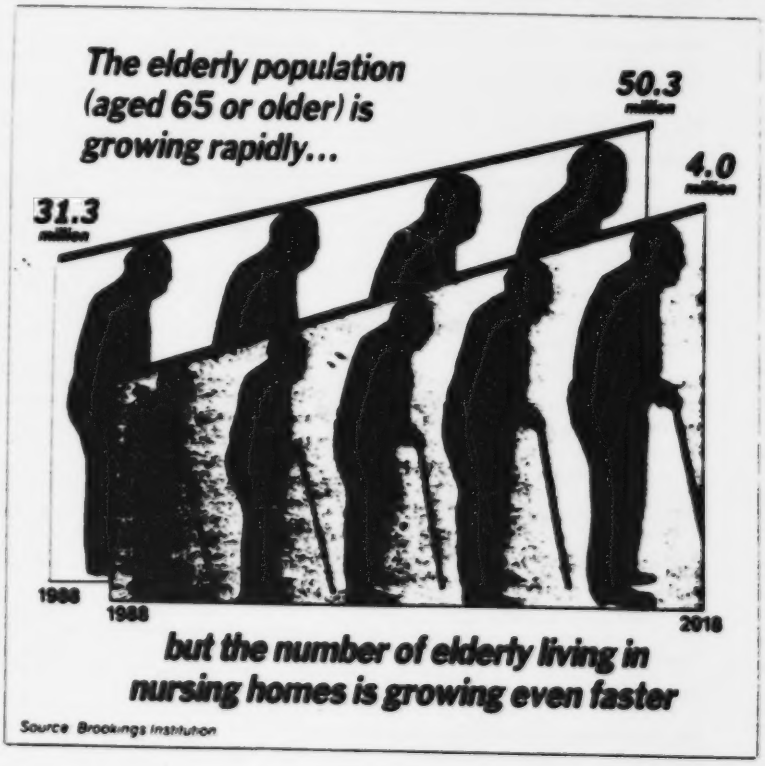
In our opinion, the vague policy language gives insurance companies too great an opportunity to contest a claim on the grounds that Alzheimer's disease has not been demonstrated. A company suddenly flooded with claims from policyholders with Alzheimer's disease might rely on that language as a basis for denying nursing-home coverage.

Other policies clearly state that Alzheimer's disease is covered. But here, again, there's a catch. Many of these policies also impose the prior-hospitalization rule. Most Alzheimer's patients, as we've noted, do not require hospitalization before they enter a nursing home.

When we asked an Aetna salesman about this, he replied: "To tell you the honest-to-goodness truth, if a doctor didn't find some way to get you into a hospital, then you're in trouble."

How large a benefit?

Daily benefits range from $25 to $100. Some policies offer a choice of benefit amounts. Obviously, it makes sense to pick a policy with benefits that closely match local nursing-home costs. A policy



paying $40 a day when the local nursing home costs $140 isn't much help. A call to two or three homes will help to establish a reasonable range of daily charges. Nationally, the average cost of a nursing home is $60 a day.

Sometimes insurance companies pay smaller benefits for custodial care than for skilled and intermediate care. The Gerber Life policy, for instance, pays a $75 benefit for skilled-nursing care, a $50 benefit for intermediate care, but only $25 if a policyholder needs custodial care.

When do benefits begin?

Policyholders can often decide when they want their coverage to start—as soon as they enter a nursing home, 20 days later, or even 100 days later. The longer this "waiting period" (sometimes called an elimination period), the cheaper the policy.

How long do benefits last?

The best policies pay benefits for an unlimited number of days for each stay in a nursing home and an unlimited number of days for all nursing-home stays. Those stays in a nursing home are sometimes called "periods of confinement" or "benefit periods."

Other policies pay benefits for a specific number of days, ranging from 730 (two years) to 3650 (10 years) for one stay, and from 730 days (two years) to 2555 (7 years) for all nursing-home stays. A few policies don't limit the number of days they'll pay benefits. They set dollar maximums instead.

In order to receive benefits for a repeat stay in a nursing home, the policyholder must usually have been out of a nursing home for at least 180 days. And when he or she returns, the waiting period starts all over again, so coverage doesn't begin immediately. Waiting periods for preexisting conditions don't begin again, however.

Sometimes a policy will have a shorter benefit period for intermediate or custodial care than for skilled-nursing care. This could be a severe limitation, since nursing-home patients require skilled care less often than intermediate or custodial care. Nearly 40 percent of all nursing-home patients stay longer than six months. Chances are good that those longer-staying patients needed intermediate or custodial care, not skilled care.

Are policies renewable?

Many policies are "guaranteed renewable," a desirable feature that insurance companies like to highlight in their sales literature. The company must renew coverage each time the policyholder pays the premium.

Beware of policies that are only "conditionally renewable." The insurer can cancel the policy provided it also cancels all other similar policies in a state. That could happen if an insurance company discovers it is losing money on this relatively new type of coverage.

A number of policies are written for groups such as the American Association of Retired Persons (AARP), or even for a fictitious group set up by the insurance company for marketing and regulatory purposes. The group holds the master contract and issues certificates to individual policyholders. The master contract for the group can be canceled, but policyholders are often able to continue the same coverage on their own.

What else to look for?

Here are other features we looked for in a policy:

Home care. More than half the policies in our study paid benefits for care at home. These benefits are usually offered as part of the basic policy coverage, but sometimes they are offered as a separate policy or as a rider at an additional premium. Home care typically covers convalescent care, homemaker or companion services, and occasionally even skilled-nursing care. A few policies define home care broadly enough to include care in hospices and adult day-care centers.

Typically, the home-care benefit is one half the daily benefit paid for skilled nursing or intermediate care, but that's where the similarity among policies ends. There's wide variation in eligibility for home-care benefits and in when those benefits begin and end.

Policies that require previous nursing home or hospital confinement would usually pay for home care only if it starts within 14 days after leaving the nursing home or hospital. Policies that do not have such a requirement would generally start paying as soon as the regular waiting period has ended.

Continued on page 304

What's in a good policy?

Features	Recommended	Your policy
Daily nursing-home benefit	$80.00	$_____
Waiting period	20 days	_____
Maximum benefit period for one stay	4 years	_____
Maximum benefit period for all stays	Unlimited	_____
Does it pay full benefits in:		
Skilled-nursing facility?	Yes	_____
Intermediate facility?	Yes	_____
Custodial facility?	Yes	_____
(If not, what does it pay?)		
If it has a prior-hospitalization rule, does coverage begin within 30 days after a hospital stay of at least 3 days?	Yes	_____
Does it pay home-care benefits?	Yes	_____
Does it pay the benefit without requiring nursing-home care or a hospital stay?	Yes	_____
Does it have waiver of premium?	Yes	_____
Is it guaranteed renewable for life?	Yes	_____
Is Alzheimer's disease covered by specific policy language?	Yes	_____
Does the premium stay level for life?	Yes	_____
What is the Best's rating of the company?	A or A+	_____
No premium is recommended; premiums vary with the age of the policyholder.	—	$_____

Pitching the policies

It has never been easy to understand insurance policies. It's even tougher when the agents selling them don't understand what they're selling. And when the policy sold is brand-new, it takes a miracle to avoid misunderstanding, duplication of coverage, or even inadequate coverage.

A CONSUMER REPORTS reporter listened to sales pitches given by six insurance agents in New York and Virginia. Two agents represented Aetna; the others represented Union Bankers, Bankers Life and Casualty, Gerber Life, and Mutual of Omaha. Our reporter witnessed no miracles.

She found confusing presentations from agents who were either ignorant of the provisions in their policies or who deliberately misstated them. An Aetna agent in Virginia admitted, "I've never had to explain this to someone." Some agents were remarkably low key, acting as if they didn't want to sell the policy.

Alzheimer's confusion

About half of all nursing-home patients suffer from Alzheimer's and related diseases, so shoppers would want to know whether a policy provided coverage for such illnesses. They wouldn't have found out listening to these agents or reading their sales brochures. The agents' confusion may well reflect their company's indecision over whether to provide such coverage.

The Aetna agent in Virginia allowed that "it was questionable" whether his policy covered the disease, but said the company was "still looking at it." He added, "It's a mental disease, and they're not sure."

No wonder he was confused. The sales brochure sent by Aetna said Alzheimer's was covered, but the actual language in the policy was less specific. It said that the policy did not cover confinements for mental disease or disorders without demonstrable organic disease. As we point out on page 301, that language may or may not mean the disease is covered.

The Union Bankers agent said Alzheimer's was covered, but the brochure he left noted that the policy didn't cover nursing-home stays for "mental illness or nervous disorders." Did that mean Alzheimer's is covered? Our reporter could only guess.

What's covered?

Coverage is the guts of a long-term-care policy, but agents were of no help defining the coverage or discussing the policy limitations. Here's how the Aetna agent in New York handled these questions:

What about intermediate-care coverage? The agent fumbled for his sales brochure and replied: "They define it here somewhere." What about skilled nursing care? "On this plan, you don't have to worry about the definition," he assured us.

As for limitations on coverage, he said there were none. "Once you have this policy, you're covered for everything." Everything? The policy specifically says it does not provide benefits for six months if a nursing-home stay results from a preexisting condition.

A competitor also had trouble explaining coverage. The agent from Bankers Life and Casualty said that intermediate care was the same thing as "convalescent care" and that skilled care meant that "they do a little more medical than the others."

When asked whether any prior hospitalization is required before skilled-nursing benefits could be paid, the agent for Mutual of Omaha said: "I don't think so. I've never seen where you have to be hospitalized first." He didn't look very far. That's just what his company's sales brochure said.

What Medicare pays

Many people think that Medicare covers nursing-home stays (see box page 311). Actually, it pays for skilled nursing-home care in Medicare-approved facilities for only 20 days and then all but $67.50 per day for the next 80 days. After 100 days, Medicare pays nothing.

Here's what the agents said:

The Gerber Life salesman said that 70 percent of all applicants for Medicare benefits were turned down "because Medicare doesn't have funds for skilled care." But when Medicare does accept an individual, he said, "after 100 days, they wash their hands of you."

The Bankers Life and Casualty agent said that Medicare paid for 100 percent of home health-care costs. "It's a wonderful benefit," he said, declaring that Medicare pays "for girls to come in" and "help do your hair."

The agent had let his imagination run away with him. Medicare's home-care benefit is very limited, and it certainly doesn't pay for beautician services. It pays only for part-time, intermittent skilled care and for physical or speech therapy. The provider must participate in Medicare.

What about rate hikes?

It wasn't always easy to get a straight answer about whether premiums could go up or policies could be renewed.

The Bankers Life and Casualty agent incorrectly said the premiums would never increase, wrongly labeling this policy feature as "guaranteed renewable." The policy and the sales brochure say that the company can raise premiums if it raises them for all policies like the one the agent was selling.

The Aetna agent in Virginia also assured our reporter that the premiums would not increase. "Once these premiums are set, you'll be paying them forever." He even double-checked his sales manual. "No, they shouldn't go up," he repeated. The sales literature he gave to our reporter didn't say one way or the other, but Aetna's policy is similar to the one from Bankers Life and Casualty. Both companies can raise rates for everyone who owns the same policy in the state.

The Mutual of Omaha salesman was thoroughly confused. His policy is not guaranteed renewable, but he replied, "It is and it isn't. If the state does not permit the company to renew, then we have to pull the policy." While that statement is true enough, it has nothing to do with the renewability feature of his policy.

Mutual of Omaha's sales brochure revealed that the company could refuse to renew a policy, if it refuses to renew them for all those who own that particular policy in the same geographic area of the policyholder's state.

Which one is best?

Naturally, each agent declared his policy the best. The feature they all cited as evidence was the length of time benefits would be paid—unquestionably important, but not necessarily the only measure of superiority.

The Gerber salesman touted his policy as the best because he said it paid benefits for "eight continuous years." And he knocked the American Progressive policy. But as you can see from the Ratings, the Gerber policy was hardly the best, ranking near the bottom. The American Progressive policy ranked close to the top.

What's best is a combination of features. To help you figure out which policy is best, ask for answers to all the questions listed in the box on page 302.

If you get answers that are vague or that contradict the sales literature, ask for a specimen policy. The policy will tell you exactly what's covered and what's not, setting out all the limitations you need to know about.

An agent might be reluctant to give you a specimen policy, however. When our reporter asked the Mutual of Omaha salesman for one, he refused to supply it. If that happens, write to the company. If a company doesn't give you what you need, go to one that does.

Insurance regulators look the other way

Every state has a department of insurance that's supposed to protect consumers by regulating the insurance policies sold in that state and by supervising the activities of insurance companies. But with few exceptions, regulators are reluctant to look too closely at long-term-care insurance policies, for fear that insurance companies will refuse to provide any coverage at all rather than tailor coverage to meet stern regulatory requirements.

"We are treating long-term care differently than other lines of insurance," says Fred Bodner, chief of the New York Insurance Department's Health and Life Policy Bureau. "We're not going to approve a policy if it's a rip-off, but we're not going to turn it down if it isn't wonderful."

The National Association of Insurance Commissioners (NAIC), which writes model laws for all states to adopt, has written one for long-term-care policies. So far, 11 states have adopted this model, and companies selling policies in these states must comply with its provisions.

States in which insurance policies must meet the NAIC standards are: Arizona, Hawaii, Indiana, Iowa, Kansas, Nebraska, North Carolina, North Dakota, Oklahoma, Oregon, and Virginia. Wyoming and Georgia were about to adopt the model law as we went to press.

The model has some good rules. Waivers denying coverage for specified health conditions are prohibited, and companies cannot offer substantially greater benefits for skilled nursing care than for custodial and intermediate care. Policies must also be guaranteed renewable, but state insurance commissioners may allow cancellation in limited circumstances.

The NAIC model permits other features we consider undesirable: Companies can require a hospital stay before providing benefits for nursing-home care, and can require that a policyholder receive skilled care before qualifying for intermediate, custodial, or home-care benefits. Although the NAIC model prohibits companies from excluding coverage for Alzheimer's disease, it doesn't require policies to specifically spell out that the disease is covered.

Not addressed by the NAIC model law is the need for standard language for long-term-care policies, much like the standard language found in a homeowners policy. Without it, consumers will be forced to rely on confused agents and equally confusing sales brochures.

When CU asked all 50 state-insurance commissioners what complaints had developed from the sale of long-term-care insurance, we learned that consumers complained most often about the unanticipated limitations on the coverage provided by their policies. Consumers believed that their policies covered them for a particular kind of care when, in fact, no such coverage existed.

Members of the NAIC advisory committee that wrote the model law considered requiring companies selling long-term-care policies to include the telephone number of the state-insurance department on forms given to policyholders who are thinking about replacing their policies. That way consumers could call their state regulators if they couldn't decipher a policy. But the committee scrapped the idea when insurance companies argued it would not provide a substantial benefit to consumers.

If insurance regulators don't help buyers of long-term-care policies, who will?

premium for his long-term-care policy had jumped a whopping 150 percent, from $180 to $450, in a single year.

Long-term-care policies don't have much of a history. As a result, insurance-company actuaries may be unable to predict nursing-home use or future costs accurately. Some insurance companies may be pricing their policies too low to cover the promised benefits in the future.

Are you insurable?

Someone who's sick and ready to check into a nursing home can't buy a policy from most companies. Many insurance companies have instructed their agents to weed out "undesirables" before applications reach the home office. If an agent sees that a person can't get out of bed alone or learns that a person has osteoporosis or Alzheimer's disease, the agent won't even deliver a sales pitch. An Aetna agent in Virginia told our reporter that she had to come to his office to hear the sales presentation, probably to see whether she could actually walk.

People who are turned down for life or health insurance might nevertheless be good risks for long-term-care insurance. "Someone with terminal cancer may be a better risk than someone with mild arthritis," says Karl Michaelson, director of health-products underwriting for Aetna. "We do not like to insure people who need aids in getting around—like walkers, canes, and oxygen."

Some companies are choosier than others. Rejection rates vary from 1 percent for Harvest Life, Pilgrim Life, and Federal Home Life to 30 percent for Finger Lakes Blue Cross/Blue Shield.

Many companies offer coverage to people with less-than-perfect health by applying "waivers," which exclude coverage for certain conditions. But buying a policy with a waiver for an illness that's likely to land you in a nursing home is a waste of money.

Instead of waivers, some companies offer coverage at higher rates to people who have health problems. Depending on the severity of the illness or condition, a "substandard risk" could pay as much as 100 percent more than a person whose health qualified him or her for the company's standard rate.

Evaluating the policies

We requested data from 81 insurance companies that sell long-term-care policies or that will start to offer them in the near future. Some told us they were withdrawing their policies and wouldn't have new ones ready in time for us to evaluate. Several companies, including Mutual of Omaha, United American, Combined American Life Insurance Co., American Integrity, National States Life, and Central

States Health and Life, declined to provide the information we requested. (We obtained policies and rate information on some of those companies from state insurance departments, but decided not to include these policies in the Ratings, because the data are incomplete.)

We've listed several policies twice, once with their home-care provisions and once without them. We've included two policies sold by MidAmerica Mutual Life, as well as both the old and new policies underwritten by Prudential for the American Association of Retired Persons.

The Ratings show the plans based on the daily benefit amounts and waiting periods that companies said were selected most often by their customers. If a company didn't tell us which of its plans was most popular, we chose one.

Some of the policies are group policies that have the same characteristics as individual policies. Policies sold by AARP are an example.

To rank the policies, we paid special attention to six main features that contribute to a policy's overall quality: nursing-facility coverage, home-care benefits, restrictions, renewability, relationship of benefits to premium and other aspects of pricing, and underwriting (the process of selecting applicants for coverage). We assigned the most points for quality of coverage and absence of restrictions. We also give bonus points to policies with liberal home-care provisions.

We also examined each company's financial stability, as judged by the A.M. Best Co., which rates insurance companies from A+ (superior) to C (fair). If a company's Best's rating is B or poorer (or if the company is not assigned a rating), we've considered it a disadvantage, since a low rating suggests some risk the company may not be around to pay future benefits.

Should you buy?

We don't recommend long-term-care policies for anyone under age 60 unless the policy offers a good way to keep benefits current with inflation in nursing-home costs. For those over age 60, a policy from one of the top-rated companies might be a reasonable choice. People whose income and assets are fairly modest should not buy long-term care policies. They would quickly qualify for Medicaid benefits should they need to stay in a nursing home.

The best policies cover care in all three types of nursing facility and offer generous daily benefits and benefit periods. They also have a good price in relation to those benefits.

Even the best policies had minor deficiencies in their coverage, however. For example, the Great Republic policy has a generous $80 benefit, paid for an unlimited period. But the policy restricts the benefit to a lower amount for the first 50 days of skilled care. It compensates for that restriction somewhat by not requiring a waiting period before paying benefits. And it is the only policy with a built-in inflation adjustment, a highly desirable feature.

The John Hancock policy offers a generous $100 benefit for six years, a period that should cover most nursing home stays, and its coverage has only a few minor limitations. Buying the policy could be a problem, however. The company estimates its rejection rate at 20 to 25 percent. A company spokesperson says that this rejection rate could drop as John Hancock agents acquire more experience selling the policy.

The most popular policies sold by Bankers Life and Casualty and its subsidiaries, Bankers Multiple Line, Certified Life, and Union Bankers, offer coverage for care in all three types of facility, and the policy specifically says Alzheimer's disease is covered. But these policies ranked somewhat below the top companies because of their relatively low daily benefit ($50), which is available for only three years for each nursing home stay.

A high premium doesn't always buy higher-quality benefits. For example, compare the American Progressive Life policy with the Life and Health of America policy, which ranked next to last.

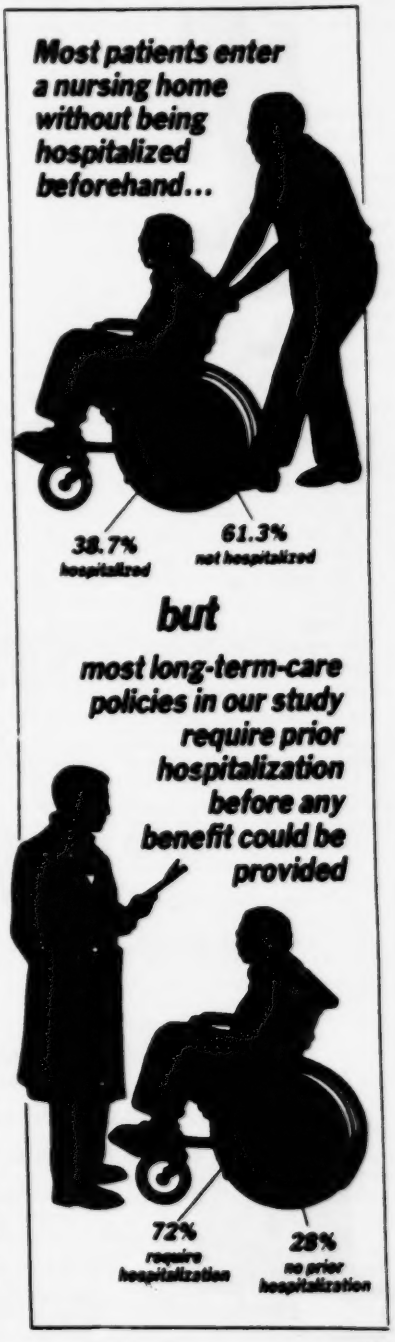
The former provides an $80 daily benefit for a monthly premium of $57.24. The policy offers benefits for three years for one nursing-home stay and five years for all stays. The Life and Health policy offers a skimpy $40 daily benefit (for only two years) yet commands a $100 premium.

Buying a policy through a group doesn't necessarily mean you'll get more for your money. Neither the policy recently sold through the American Association of Retired Persons nor the policy that will replace it this spring ranked highly. They impose a 90-day waiting period before nursing-home benefits begin and pay benefits for only three years. (Visits by home-health-care workers count toward satisfying the 90-day waiting period.) Neither policy, however, requires a stay in a hospital before benefits start.

The old AARP policy has no provision to continue coverage if the group contract is cancelled; the new one does. An AARP spokesperson says that people who have bought the old policy have assurances from AARP that coverage won't end.

Insurance companies have come up with some innovative ideas. For example, Metropolitan's Security Care Agreement for Group Health Cooperative of Puget Sound provides service in accordance with the principles of a health maintenance organization. Patients receive service instead of dollar benefits. Since the benefits offered by this plan will cover 100 percent of the actual cost of nursing-home care, they should hold up well against inflation.

This plan did have its drawbacks. It paid benefits for a relatively short time (4 years), lacked a waiver of premium, and had a high estimated rejection rate (20 to 30 percent).



Must you die poor?

Mary Ann Mattingly, of Indianapolis, looked forward to a comfortable old age when her husband James retired from his job as a security guard at the Eli Lilly Co. The Mattinglys lived reasonably well on the $744 a month he received from his company pension plan and from Social Security. They even managed to dine out on occasion.

But James's health slowly began to deteriorate. He became confused. He could no longer walk. He needed someone to help him eat. In 1979, at the age of 72, he checked into the Eastside Health Care Center, an Indianapolis nursing home. By the time James died in 1986, the Mattingly family, despite a lifetime of work and the security of a pension, had sunk into poverty. It was either that or do without the care James needed in his final years.

James's first year in the nursing home cost $12,000—about $3000 a year more than the family's total annual income. Mary Ann applied for help from Medicaid, the Federal and state program that helps the poor pay their health-care bills. She learned she was too rich for Indiana's Medicaid program. The Mattinglys had accumulated $5000 of Eli Lilly stock, $3000 in a passbook savings account, $2000 in life-insurance cash value, $5000 in a certificate of deposit, and $300 in a Christmas-club savings plan.

The only way Mary Ann could keep James in a nursing home was to become impoverished. Medicaid pays the bills only after the family assets and income run out. That usually doesn't take long. On average, 13 weeks elapse from the time a patient is admitted to a nursing home until the spouse left at home is impoverished. It took Mary Ann Mattingly only nine months to spend on nursing-home care most of what the family had accumulated. When she was poor enough, Medicaid stepped in.

Each state has its own Medicaid rules. Indiana allowed Mary Ann to keep $2250 of her family's assets plus her household furnishings. (If she'd owned a home, she could have kept that, too.) But nursing-home care still took $477 a month of the Mattinglys' $744 monthly income, leaving $238 to cover rent, gasoline and insurance for the car, and food, and $29 for James's incidental expenses.

Once she became poor, Mary Ann, who had never taken a hand-out in her life, qualified for food stamps—as much as $75 worth a month, but more often $30 worth. Special Federal funds to help poor people pay for utilities sometimes paid for her heating bills.

The Medicaid rules did give Mary Ann one way to protect her assets and avoid poverty: divorce. After 32 years of marriage, she wouldn't consider it.

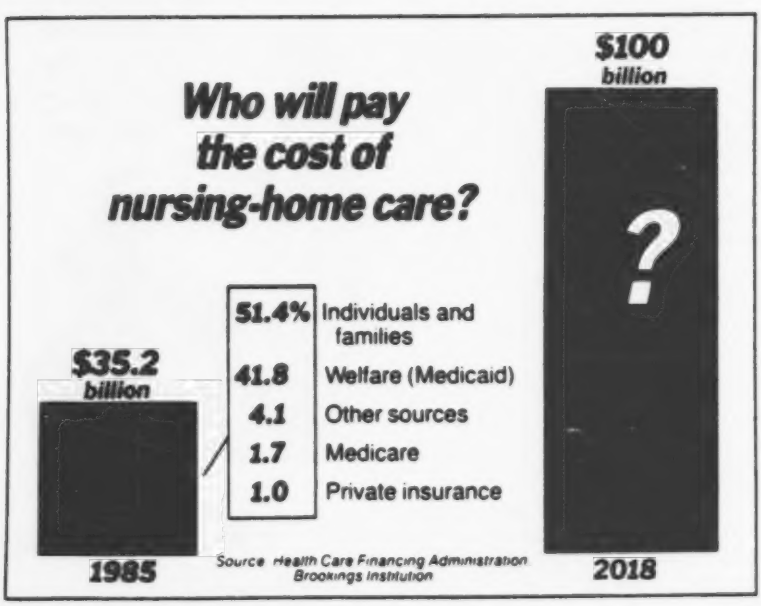
"It was horrible," says Mary Ann. "There's still anger in me. Nobody can understand until they've experienced it. A lot of people today don't know what they have in store."

Indeed they may not.

In the year 2030, people over 65 will make up 21 percent of the population, up from 12 percent in 1985. The fastest-growing age group is the "old-old," people 85 and older. Their need for long-term care is greatest.

Nursing-home costs have gone up almost as fast as the age of the population. The average annual cost of a year's stay in a nursing home is now about $22,000, but the cost rises to as much as $45,000 in metropolitan areas such as New York City. Medicaid pays for nearly half of those stays. Federal expenditures for nursing-home care grew tenfold from 1965 to 1980 and will quadruple by 1990.

For years, health economists and social-service planners have seen the shadow of these costs looming. But long-term care for the elderly has only recently won a place on the national agenda—as a seemingly intractable problem for the debt-ridden Federal government, as a giant financial headache for state governments that share the cost of the Medicaid program, as a painful crisis for more and more families, and lately as a marketing opportunity for insurance companies.



What to do?

In 1986, the Secretary of Health and Human Services, Dr. Otis Bowen, issued a report pointing out that Medicare, the health-insurance program for the elderly, did not protect people from the high costs of a catastrophic illness. The report fo-

cused attention on the financial consequence of stroke, heart attack, and other medical catastrophes. The reaction to the report spurred Congress to pass bills expanding Medicare to include coverage for catastrophic illnesses of *limited* duration.

But none of the bills do anything to help families pay for long-term care—the greatest source of economic catastrophe. Eighty percent of health-related costs that exceed $2000 a year are due to nursing-home and other long-term-care expenses.

Who then will pay?

The Reagan Administration's answer, echoed by the health-insurance industry: Consumers should buy long-term-care insurance policies, of the type rated in the accompanying report. That set off a small boom in this new insurance product. Unfortunately, few of the insurance policies we looked at adequately meet the need. And the cost of these policies—as much as $1230 a year for a 65-year-old—may well be beyond the means of those who need protection most.

Even those who can afford such policies for themselves or for their parents may find insurers unwilling to sell, usually because the person to be insured is already a candidate for a nursing home. Insurance companies aren't eager to insure people who are almost certain to generate a claim. A few companies in our survey estimated that they turned down as many as 20 or even 30 percent of potential buyers.

Insurance companies would prefer to market their policies to employers, who in turn would offer them to their employees, thus encouraging younger people to buy the insurance when they are still insurable and when the rates are low.

But private insurance for long-term care is a tough sell to employers and employees alike. Employers, some of whom already face huge liabilities for current and former employees' conventional health insurance, are unlikely to pick up the tab for yet another kind of insurance now or in the near future. At most companies that do offer long-term-care insurance, employees must pay the entire premium. But healthy workers either do not know what's ahead for them (estimates are that as many as one of every two people who reach age 65 will eventually land in a nursing home) or prefer not to think about it just yet. When Aetna Life Insurance Co. offered long-term-care coverage to its own employees, only 7 percent bought it. Ten percent of its retirees signed up.

A recent study by the Brookings Institution, using generous assumptions about people's ability to pay for long-term-care policies, predicted that by the year 2018 private insurance would cover only 7 to 12 percent of all nursing-home expenses. Brookings researchers believe that, at best, only one-quarter to one-half of the elderly would buy long-term-care policies.

Thus, for many low- and middle-income families, Medicaid and its prerequisite—spousal impoverishment—will remain the only feasible way to pay for long-term care, unless we find a better way.

Expanding the safety net

Soon the Federal government—and American taxpayers—will have to face the increasingly urgent need for a new social-insurance program that helps chronically ill and disabled people with the costs of long-term care before those costs impoverish them.

The need for universal long-term-care protection can be met through a new mandatory insurance program that complements Medicare and replaces the long-term-care portion of Medicaid. Or the current Medicare program could be expanded to include voluntary insurance paid for by premiums charged to participants.

The private insurance system can't spread its costs over a large enough number of people to minimize the financial burden on any one person. Only the Federal government can do that. Funding long-term-care insurance through general revenues spreads the cost among everyone who's a future candidate for long-term care. And making the insurance available to (and required of) everyone eliminates the eligibility standards that now effectively withhold private insurance from those who need it most. A Federally mandated insurance program would also eliminate Medicaid nursing-home coverage, and with it the costs and stigma associated with Medicaid.

So far, however, the only long-term care proposal to surface in Congress addresses long-term care only at home, not in a nursing home. A bill introduced by Claude Pepper, the Democratic Congressman from Florida, would provide a range of home-care, physical-therapy, and homemaker services to the chronically ill elderly and to disabled people of all ages. It would be financed by applying that portion of Social Security taxes that pays for Medicare (1.45 percentage points) to all earned income rather than to the first $45,000 of income, as at present. Some 5 percent of American workers earn more than $45,000 a year; they pay a proportionally smaller tax for Social Security and Medicare than do the great majority of workers who earn $45,000 or less.

Although the Pepper bill, if it passes, may help keep some ill or disabled people out of institutions, it is only a first step toward correcting a health-insurance system that forces too many people into poverty. The bigger step—universal coverage for long-term care no matter where the service is rendered—remains to be taken. ■

What's available now

Program	Nursing home	Home care
Medicare	Skilled-nursing care covered only in approved facilities: 100% of eligible expenses for 20 days; all but $67.50 a day for next 80 days; nothing after that; no custodial or intermediate care.	Only part-time, intermittent skilled care and speech or physical therapy covered. Person must be confined to home and care-provider must agree to reimbursement under Medicare rules.
Medicaid	Skilled, intermediate, and custodial care covered once a person's assets and income drop below state Medicaid limits.	Part-time nursing and home-health aids provided if requested by physician for those eligible for Medicaid. States have the option to offer a variety of non-medical home-care services.
Medicare supplement policies	Benefits range from nothing to the policy limits for sharing the cost of care for days 21-100; after that, policies pay a set amount each day. Custodial or intermediate care usually not covered.	Usually nothing covered.
Ordinary health insurance policies	Very limited post-hospital, convalescent, skilled-nursing care covered, but usually no custodial or intermediate care.	Very limited post-hospital convalescent care may be covered.
Veterans Administration	Skilled-nursing care provided only in VA facilities on a space-available basis for eligible veterans.	Chronically ill eligible veterans, eligible for medical, nursing, and rehabilitative care.

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The intervention approaches, clients groups, and impacts on use of Medicaid and Medicare reimbursed services are described for five demonstrations included in the national evaluation of community-based long-term care. Only one project produced significant reductions in nursing home use. Unlike other projects, it identified potential clients through nursing home application. Project differences in clients' functioning did not appear related to nursing home or hospital use. Results suggest that functional criteria for target group definition need to be augmented by such improved mechanisms as preadmission screening for identifying clients with short-term risk of nursing home use.

Key Words: Channeling programs, Targeting, Community-based services

Community-Based Long-Term Care Models, Target Groups, and Impacts on Service Use[1]

John A. Capitman, PhD[2]

It has been believed since the early 1970s that the frail aged often prefer community-oriented long-term care services to institutional care, and that with adequate supply and coordination of these services, the potential exists for reducing the rate of growth in public expenditures for long-term care (Gurland et al., 1981; Kaufman, 1980; Kistin & Morris, 1972). Demand by the aged and their families for a wider range of options in long-term care has continued to grow (U.S. General Accounting Office, 1982) and there has been remarkable increase in community care supply in many parts of the country as a result of the Medicaid 2176 home community-based waiver programs and other factors. Controversies still exist, however, concerning which models of the delivery and financing of community-oriented long-term care are most clinically and economically desirable.

Among other issues, the evaluation of the Health Care Financing Administration (HCFA) sponsored demonstrations provided the opportunity to examine the relationships among community care models, the characteristics of participants, and project impacts on traditionally covered service use. This paper examines these issues for the five projects that received the greatest attention in the national evaluation: the New York City Home Care Project (Horowitz et al., 1984); the Long-Term Care Project of North San Diego County (Hill & Pinkerton, 1984); Project OPEN (Sklar & Weiss, 1983); the South Carolina Community Long-Term Care Project (Blackman et al., 1985); and the On Lok Community Care Organization for Dependent Adults (Ansak & Zawadski, 1983). The next paper describes variations in case management practices for a broader group of projects including the above five.

Community Long-Term Care Models

At least three characteristics were shared by all five projects featured in the national evaluation:

1. All projects assumed that by offering expanded case managed community long-term care services, use of traditionally covered Medicaid and Medicare covered services such as hospital care, nursing home care, and post-acute home health care could be changed. The types of changes sought may have differed but all projects assumed that reductions in costs associated with use of the traditionally covered services would more than offset costs associated with case management and the new services.
2. All projects assumed the need among targeted long-term care users for paraprofessional home health services meeting service needs associated with activities of daily living, instrumental activities of daily living, and mental status disabilities. Such paraprofessional services were covered by waivers in all projects.
3. All projects assumed the need for case management as an administrative service that directs client movement through a series of involvements with the formal long-term care system, while integrating formal and informal service provision wherever possible. Case management, offered by all projects, included multi-dimensional functional assessment and re-assessment, care plan

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Chart I
Characteristics of Coordinated Community-Oriented Long-Term Care Demonstrations

Characteristics	Long-Term Care Project of North San Diego	New York City Home Care Project	South Carolina Community Long-Term Care Project	On Lok Community Care Organization for Dependent Adults	Project *OPEN*
Waiver type	Medicare	Medicare	Medicaid/Medicare	Medicare	Medicare
Intervention[a]	Upgrade home care package available to Medicare beneficiaries	Upgrade home care package available to Medicare beneficiaries	Control client access to and use of institutional services	Consolidate service delivery into a single agency	Upgrade home care package available to Medicare beneficiaries
Scale of[b] Demonstration	Single Sample/ Sub-county	Multiple Samples/ Sub-county	Population/ Multi-county	Single Sample/ Sub-county	Single Sample/ Sub-county
Mechanism for Client Identification	Referral based on presumed risk	Referral based on presumed risk	Nursing home application	Referral based on presumed risk	Referral based on presumed risk
Functional Health Conditions for Eligibility	ADL/IADL disability requiring maintenance services to stay at home or medical problem requiring teaching/professional services to avoid hospitalization	ADL/IADL disability requiring 6–20 hours of personal care to remain at home	Nursing home level of care or 3 or more ADL disabilities	Nursing home level of care	Needs help in personal care, hospital or SNF stay in prior month, and needs help to maintain independence at home.
Proportion Using Waivered Services	100%	100%	35%	100%	95%

[a]The strategy reflects a primary emphasis of the project intervention.
[b]The scale of the project intervention includes two elements: (1) the extent to which the project serves the entire eligible population, and (2) the number of separate site catchement areas. The categories of the first element are defined as follows: *Single Sample*: The project has a single continguous catchement area and services a small proportion of the eligible population. *Multiple Samples*: The project has more than one catchement area and serves only a small proportion of the eligible population in those areas. *Population*: The project has a single catchement area and its intervention affects the entire eligible population in that area.

negotiation and periodic revision, and service arrangement and monitoring. Termination planning was offered by some projects.

The five projects were in highly diverse host communities and they differed in terms of major elements of intervention design. Differences included whether they received Medicaid 1115, Medicare 222, or both types of waivers, their intervention strategy or dominant goal, the scale of the demonstration, and waivered service prescription practices. They also differed in targeting goals as defined by formal eligibility guidelines and mechanisms for client identification. Chart 1 summarizes the intervention design and target group variations in the five projects.

While differing in organizational aegis and in some aspects of demonstration scale, New York City Home Care Project, San Diego Long-Term Care Project, and the Project OPEN were all interventions that sought to improve the package of home care services available to the aged under Medicare. All three also sought to improve the efficacy of these new and the existing services through case management. These projects were all free-standing, case management programs. They received the majority of their referrals from individuals and community-based care providers. All of their clients were found in the community and were expected to remain in the community. No clients were identified through nursing home application. They were not in the business of planning admission or discharge from hospitals or nursing homes.

The three programs differed in terms of specific functional eligibility guidelines. The New York project sought community residents with severe functional disabilities in need of between 6 and 20 hours of personal care services but whose income levels made them ineligible for the expansive Medicaid personal care program available in New York. While they did not require that clients be eligible for ICF/SNF admission, their targeting criteria approximated an institutional level of care requirement. The San Diego project sought moderately disabled clients whose chronic health conditions were subject to acute exacerbation and associated hospital admissions. Project OPEN sought individuals with moderate to low levels of disability who appeared to require coordination of the broadly available community-based services in San Francisco. Nonetheless, all expected to reduce the use of nursing home and especially acute care services paid for by Medicare.

South Carolina Community Long-Term Care Project was a Medicaid 1115 demonstration of preadmission screening of nursing home applicants. Pre-admission screening was intended to divert nursing home applicants to case managed community care in the three-county area the project served. It was designed to assess individuals in multiple locations (e.g. hospital, nursing home, or the community) and establish whether they satisfied the level of care requirements for Medicaid nursing home coverage in the state. If a package of existing and waivered community services could be developed at lower cost to the Medicaid program than the nursing home stay, the nursing home-eligible client was given the choice of home-based or institutional care. It was noteworthy that the application for nursing home care served as the mechanism for client identification. As in other projects, formal eligibility for assessment services and the level of community or institutional services offered to the client were determined by satisfaction of functional health status criteria.

The On Lok Community Care Organization for Dependent Adults was a Medicare demonstration that, like South Carolina, sought clients at the institutional level of care and planned needed community and institutional services. Unlike South Carolina, its major goal was to offer comprehensive, consolidated long-term care services to frail elders in its underserved urban catchement area. Based on the health maintenance organization (HMO) model, it assumed that consolidated service delivery with a focus on adult day care rehabilitative and personal care maintenance programs could result in more efficient and effective long-term care delivery. Note, however, that clients were referred because of service needs and presumed appropriateness for the On Lok program and not as a response to nursing home application.

Chart 1 also suggests that programs varied markedly in the proportion of clients offered expanded community care services through the Medicaid 1115 and Medicare 22 waivers. This variation is in part explained by differences in the design of interventions and in part by differences in care planning practices. For example, while all On Lok clients used waivered services, this was true because the HMO-based model covered all service use with waivers and all clients received at least part of their care in congregate settings. Even among the remaining projects, however, there was considerable variation in the intensity of waivered service prescription. About 35% of the South Carolina participants received waivered services and use of these services was lower than in other projects. Essentially all New York, San Diego, and Project OPEN clients accessed the waivers. For example, services similar to personal care/homemaker were available in all projects. In South Carolina, however, 33% of the participants were users and they averaged 21 hours of this service on a monthly basis. Higher levels of personal care/homemaker service were prescribed in all other projects with the highest in New York City where 99% were users and they averaged 58 hours of this service on a monthly basis. As will be shown later, differences in intensity of waivered service use reflect project practices as opposed to the average disability levels of clients.

Methods

The national evaluation combined primary data collection and secondary data generated by each demonstration. The demonstrations varied with respect to evaluation designs, data collection methods, assessment procedures, and other major elements of methodology. The national evaluation attempted to derive a comparable set of data elements for each project and applied comparable analytic procedures. Variations in these procedures were necessary to arrive at the most appropriate approach to examining each project. As a result, across-project comparisons are qualitative and are not based on tests of significance. The development of data sets and analytic procedures for the national evaluation are described in greater detail in Capitman and Spivack (1984).

Samples. — Table 1 shows the evaluation design and sample sizes for each project. Three projects (San Diego, Project OPEN, and South Carolina) used randomized experimental and control groups. New York used a nonequivalent comparison group design while On Lok attempted a matched comparison group design. While Project OPEN and the San Diego project randomized cases after eligibility for the demonstration was ascertained, in South Carolina, randomization occurred before Medicaid eligibility determination. As a result of considerable attrition before service initiation, the eventual treatment and control groups showed more statistically significant differences than did those in the two other randomized trials. In each case, New York City and On Lok comparative groups were less similar to the treatments than in the randomized designs.

Measures. — Data were available on participants' characteristics from project assessment procedures while service use data were derived from management information systems. Measures of demographic and functional/health conditions were derived from initial assessments. Demographic variables included age, sex, race, marital status, and living arrangement. Fully comparable data on these elements were available across projects.

Major functional disability measures that were available with sufficient comparability to support across-project analyses included activities of daily living, instrumental activities of daily living, ambulation, incontinence, and mental status. Because of variations in the coding of functioning measures across projects, all functional measures except for mental status were recoded to presence or absence of a disability. Only performance measures of dependence on human assistance were utilized in all cases (though both performance and capacity measures were available in three of the projects). The

Table 1. Evaluation Design, Sample Sizes and Proportion of Eligibles with Services use Data: Coordinated Community-Oriented Long-Term Care Demonstration

	Evaluation design[a]	Sample Sizes		No. of Medicare enrolled participants	% of enrolled with complete Medicare data	No. of Medicaid enrolled participants	% of enrolled with complete Medicaid data
		Treatment	Comparative				
Long-Term Care Project of North San Diego	Random assignment after eligibility	555	328	883	77	N/A	N/A
New York City Home Care Project	Non-equivalent comparison	504	200	704	88	72	64
South Carolina Community Long-Term Project[b]	Random assignment before eligibility	403	460	756	81	863	95
On Lok Community Care Organization for Dependent Adults[c]	Matched pair	65	38	103	100	103	100
Project OPEN[d]	Random assignment after eligibility	200	118	338	79	N/A	N/A

[a]All projects used pre-test and multiple post-test on assessment measures and continuous tracking of service use.

[b]Only the South Carolina sub-sample who entered the project during its first 18 months.

[c]Only the On Lok subsample who were at home or in the hospital at intake. Five treatment and 32 comparison participants were excluded because they were nursing home residents at intake. Service use data was complete for all cases, but did not distinguish use by payment source.

[d]Medicaid data were not analyzed for San Diego and Project OPEN since less than 10% were enrolled and complete data were not available on all enrolled participants.

development of measures for the cross-cutting evaluation were described in Capitman et al. (1984).

The Activities of Daily Living measures in the national evaluation were based on the Katz et al. (1963) scales. The incontinence item was not included as part of the summary scale since it was absent or not comparable in some projects. Included items were bathing, dressing, toileting, transferring, and feeding. The ability to form a Guttman scale with these items was demonstrated in all projects at an acceptable level (.89 or above). The Instrumental Activities of Daily Living items were less available, and it was not possible in one project to form a reliable scale after Lawton and Brody (1969). Only five items were comparably measured across the majority of projects: meal preparation, shopping, transportation, self-medication, and housekeeping. Projects varied even more widely in the use of mental status measures. All but On Lok used a version of either the Kahn Mental Status Questionnaire (1960) or the Pfeiffer Short Portable Mental Status Questionnaire (1975). For cross site comparison an adjusted mean score based on the version of the MSQ used was constructed. Adjustments were designed to correct for missing data and variations in scoring. On Lok's proxy measure of mental status based on interviewer ratings of short-term and long-term memory and orientation to time, place, and person was shown to be internally reliable and distinct from measures of emotional functioning through a principal components analysis.

Measures of service use and associated reimbursements were derived from varied sources. Table 1 indicates the number of project participants from whom valid Medicaid or Medicare identifiers were obtained and the proportion of these individuals for whom up to 12 months of valid data were available. Traditional Medicare Part A and Part B home health use was derived from the HCFA bill history retrieval system for all projects except On Lok where the capitated payment system precluded the use of this source. In the case of New York, about 25% of the sample had complete Medicaid data for less than 12 months because of the late admission dates. Traditional Medicaid service data were derived from the New York, California, and South Carolina Medicaid information systems. Data for New York City and South Carolina were analyzed though data was of questionable completeness in the case of New York City. Medicaid use for San Diego and Project OPEN involved too few (less than 10% of participants) to warrant presentation here. On Lok data on all service use (Medicaid, Medicare, social services, and waivers) were derived from internal record systems. Across projects, all measures of traditionally covered service use and associated reimbursements were expressed as averaged monthly use per active client month. Active client months included up to 12 months after initial eligibility for the project, but could be less if the client died or lost eligibility. Total service use over the study period was divided by active client months on an individual basis. Even when clients were lost to project follow-up, service use was tracked if they remained eligible for project services.

Analysis. — Two analyses are presented. First, the characteristics of the treatment groups only are

presented and compared across projects. Second, use of traditionally covered Medicaid and/or Medicare services as a function of treatment or comparative (control or comparison) group status are presented. While the potential for bias in this analysis seems great because treatment and comparative groups were not identical at intake, analyses not reported here suggested otherwise. In all projects, the characteristics of the treatment and comparative groups at intake were compared using t-tests for continuous variables and chi-square tests for categorical variables. All statistically significant group differences were used as co-variates in hierarchial multiple regression analyses. This approach was chosen over the traditional analysis of co-variance because of the potential for heterogeneity of treatment effect across levels of the co-variates (Cohen & Cohen, 1983). If subgroups of participants had differential responses to the demonstration, these could be expressed as significant interactions between intake characteristics and experimental group in the regression analyses. Such interaction effects, however, were never statistically significant. In fact, in all cases where such analyses of co-variance were conducted, they had little impact on the magnitude and direction of treatment effects with respect to utilization of services. The block of co-variates was rarely statistically significant. The co-variates explained 12% of the variance in nursing home use in the South Carolina project, and explained 3% or less of the variance in service use in all other cases. The detailed results of the co-variance analyses are available in Capitman et al. (1984). It would appear that the ways in which treatment and comparative groups differed at intake had little impact on service use in any project.

Results

Target groups. — Given the differences in intervention strategies and intended target groups both from the perspective of mechanisms for identification and functional eligibility guidelines, how did actual client groups differ across projects in terms of functioning and service use?

Table 2 summarizes the demographic characteristics of project clients. While South Carolina and Project OPEN served considerable proportions under age 65, the other projects primarily served those age 65 and older as a reflection of Medicare eligibility. One-fifth or more of the participants in each project were aged 85 and older, suggesting that all projects were serving the very old. The vast majority of the participants in most projects were white and female except for On Lok where the majority were male and nonwhite. The particular mixture of racial/ethnic groups represented in each project reflected characteristics of catchement areas. While approximately equal proportions of the clients were living alone or with others in On Lok, San Diego, and Project OPEN, greater proportions of the New York City and South Carolina participants lived with others. These differences in living arrangements were also associated with differences across projects in the availability of informal caregivers (Capitman et al., 1984).

Table 3 provides a summary of functional status findings from the client groups. The New York City and South Carolina projects showed the highest proportions dependent in at least one ADL task and in ambulation. Participants in these two projects also showed the highest rates of dependency in each of the ADL tasks and high rates of incontinence. By contrast, San Diego and Project OPEN clients showed far lower rates of ADL dependence, though Project OPEN clients showed relatively high proportions with mobility limitations and San Diego clients showed relatively high rates of incontinence. On Lok clients showed the highest proportion incontinent of either bladder or bowels, but slightly lower rates of dependency in the ADL items. Essentially all clients had at least one IADL disability, except at Project OPEN. Both San Diego and Project OPEN, however, showed notably lower proportions dependent in individual IADL tasks than the other three projects. While about one third of the New York, South Carolina and San Diego clients showed some cognitive impairment on the Kahn or Pfeiffer MSQ, only 7% of the Project OPEN clients were not intact by this measure. While over 40% of the On Lok clients were rated as having some cognitive loss, this may represent a measurement artifact since it is not based on a fully comparable assessment approach.

Comparing actual client group functioning characteristics across projects suggests that, in general, the demonstrations were successful in obtaining their intended target groups. Project OPEN sought and obtained individuals with moderate to low levels of functional dependence, while San Diego sought and obtained a moderately dependent group. New York City did not require its clients to meet Medicaid nursing home level of care requirements, but targeted individuals with functioning levels approaching these requirements. By contrast, South Carolina and On Lok sought nursing home eligibles. All three projects obtained client groups with relatively severe functional disabilities. What was perhaps most noteworthy was that while New York and On Lok clients were referred because of presumed risk of losing community tenure, South Carolina participants were identified at the point of nursing home application as part of the pre-admission screening program. Nonetheless, these three projects obtained client groups with similar levels of functional dependence.

Traditional service use. — Provision of expanded case managed community care was intended to impact use of traditionally covered Medicare or Medicaid services for each of these broadly divergent client groups. Table 4 shows treatment vs. comparative group differences in use of Medicare-reimbursed hospital care, skilled nursing facility care and home health services, while Table 5 shows impacts on Medicaid-reimbursed institutional services for New York City and South Carolina. These data are based on the subsamples for whom valid Medicaid or

Table 2. Demographic Characteristics of the Client Groups: Coordinated Community Oriented Long-Term Care Projects

	New York City (n = 504)	South Carolina (n = 403)	On Lok (n = 65)	San Diego (n = 555)	Project *OPEN* (n = 220)
Age					
Under 65	0%	19%	2%	0%	0%
65–69	17%	11%	5%	12%	14%
70–74	15%	16%	16%	22%	23%
75–79	21%	18%	14%	24%	18%
80–84	23%	17%	22%	20%	19%
85 +	24%	21%	20%	23%	26%
Mean age	78.3	73.4	78.8	78.3	78.6
Sex					
Female	69%	70%	49%	69%	70%
Male	31%	30%	51%	31%	30%
Race					
White	78%	78%	29%	97%	69%
Other	22%	22%	71%	3%	31%
Marital status*					
Married	45%	29%	32%	44%	31%
Widowed/divorce/single	54%	61%	68%	56%	69%
Living/arrangement					
Alone	35%	25%	46%	52%	55%
With others	64%	75%	54%	48%	45%

*Percents do not always total to 100% due to rounding.

Table 3. Functional Status Characteristics of the Client Groups: Coordinated Community Oriented Long-Term Care Projects

	New York City (n = 504)	South Carolina (n = 403)	On Lok (n = 65)	San Diego (n = 555)	Project *OPEN* (n = 220)
Activities of daily living (ADL) (% dependent)					
Bathing	95%	96%	91%	52%	48%
Dressing	76%	84%	61%	33%	15%
Toileting	53%	83%	43%	22%	6%
Transferring	53%	64%	—	—	7%
Feeding	35%	59%	14%	13%	6%
Percentage dependent in at least one ADL	95%	95%	90%	55%	50%
Instrumental activities of daily living (IADL) (% dependent)					
Meals	96%	86%	96%	64%	30%
Shopping	100%	94%	95%	86%	68%
Transportation	97%	—	—	86%	39%
Medication	54%	76%	—	37%	14%
Housekeeping	100%	95%	94%	88%	64%
Percent dependent in at least one IADL	100%	97%	100%	97%	81%
Ambulation					
Walks with assistance	32%	32%	—	16%	41%
Wheelchair or bedbound	13%	41%	—	9%	2%
Percent with some mobility limitation	46%	72%	—	25%	44%
Incontinence					
Bladder	21%	21%	19%	—	11%
Bowel	4%	5%	10%	—	1%
Bladder and bowel	14%	33%	29%	—	12%
Percent incontinent of either bowel or bladder	38%	58%	59%	43%	24%
Mental status (MSQ-number of wrong answers 0-10)					
Average	2.6	3.5	4.9*	2.3	.6
(Standard Deviation)	(3.5)	(4.0)	(3.8)	(3.1)	(2.2)
Percent with some cognitive impairment	33%	32%	41%	31%	7%

*Not based on Kahn or Pfeiffer MSQ.

Table 4. Averaged Monthly Use of Traditional Medicare Services: Coordinated Community-Oriented Long-Term Care Demonstrations

	New York City		San Diego		South Carolina		On Lok		Project OPEN	
	Treatment (n = 458)	Comparison (n = 161)	Treatment (n = 427)	Control (n = 211)	Treatment (n = 295)	Control (n = 317)	Treatment (n = 63)	Comparison (n = 38)	Treatment (n = 178)	Comparison (n = 90)
Acute care days										
$\bar{X}$	1.78	1.72	1.09	1.04	3.15	3.71	.83	1.06	1.08	1.37
std	(3.35)	(3.34)	(2.10)	(2.02)	(5.35)	(6.28)	(2.02)	(2.06)	(3.00)	(2.28)
% Using	41%		50%		67%		22%		49%	
Skilled nursing facility days										
$\bar{X}$	.02	(.04)	.08	.11	.95	1.31	1.00	.44	.01	.03
std	(.29)	(.67)	(.64)	(.76)	(3.43)	(3.95)	(4.29)	(5.66)	(.09)	(.25)
% Using	1%		3%		10%		18%		1%	
Home Health Visits										
$\bar{X}$	1.04	.99	.30	1.48*	1.20	1.12	N/A	N/A	.71	.73
std	(2.40)	(2.44)	(1.67)	(2.89)	(2.35)	(2.66)	N/A	N/A	(2.01)	(1.80)

*Treatment/Control difference, t = 5.51; $p < .01$. No other t-test were significant at $p < .05$.

Table 5. Averaged Monthly Use of Medicaid Reimbursed Nursing Home and Hospital Care: South Carolina Community Long-Term Care Project and New York Home Care Project

	South Carolina		New York City	
	Treatment (n = 383)	Control (n = 437*)	Treatment (n = 30)	Comparison (n = 14)
Nursing home days				
$\bar{X}$	7.53	10.35*	.53	.40
std	(11.44)	(12.24)	(1.53)	(1.37)
% Using	42%		10%	
Acute care days				
$\bar{X}$	.47	.32	.36	1.57
std	(1.74)	(1.98)	(.76)	(2.61)
% Using	36%		5%	

*Treatment/Control difference, t = 3.39; $p < .001$. No other t-test were significant at $p < .05$.

Medicare identifiers and relatively complete service use data were available (see Table 1).

Only in the cases of home health services under Medicare in San Diego (Table 4) and nursing home care under Medicaid in South Carolina (Table 5) were significant impacts observed. The South Carolina project appeared to reduce significantly the number of nursing home days reimbursed by Medicaid, while the San Diego project reduced the number of Medicare-reimbursed home health visits. San Diego home health impacts, however, were more than offset by use of comparable waiver services. In both cases, the control for differences in intake characteristics using hierarchical multiple regression analyses did not reduce the significance of these findings, though the magnitude of the effects were somewhat reduced. Other analyses not reported here showed that the South Carolina project significantly reduced the likelihood of entering a nursing home and increased both the number and percentage of active days in the community during the 1-year study period. In no cases were these results confounded by interactions between case mix differences at intake and experimental group. Further, no other project analyses showed a change in the magnitude or direction of intervention effects on traditionally covered service use after introduction of co-variates for intake case-mix differences between experimental groups.

The lack of program impacts on nursing home use reimbursed by Medicare (Table 4) or Medicaid (Table 5) in projects other than South Carolina may be attributable to the low rates of nursing home use. While an overall 42% of the South Carolina participants used nursing homes, rates of use in other projects were low. On Lok participants in the community at intake used about 1 day of nursing home care on a monthly basis, and nearly 18% used such care at any point during the project. For New York City, San Diego, and Project OPEN, average monthly use was well below 1 day and only between 1 and 3% of the participants ever used nursing homes. The results suggest that the differences in client groups across projects with respect to functional disabilities may have relatively less impact on service use than the mechanism for client identification. Individuals identified as potential community care users through nursing home applications appear to have much greater likelihood of using nursing homes than similarly disabled individuals in the community who are not seeking institutional care.

In general, the programs were not successful in significantly reducing hospital use reimbursed by Medicare (Table 4) or Medicaid (Table 5). While South Carolina participants averaged 3.5 days a month, use in all other projects was under 2 days a month combining across payors. Across projects, between 22 and 67% of the demonstration partici-

pants were hospitalized during the study period. These rates are in all cases higher than in the general aged population. Further, in all cases except On Lok, participants were more likely to be hospitalized than those in the general aged population with limitations in major activities (NCHSR, 1984). Given that acute care use was greater than that experienced by the general aged population, there may have been potential for intervention impacts in this area. But in no project did such impacts achieve statistical significance, and in some cases hospital use was increased rather than decreased as compared to individuals using the existing system. The primarily paraprofessional home care services offered through the waivers did not appear to influence the determinants of hospitalization.

Summary and Conclusion

The cross-cutting evaluation of coordinated community-oriented long-term care demonstrations suggested that there were broad differences in the goals of the demonstrations. South Carolina attempted to divert nursing home applicants to community settings, while On Lok attempted to provide a consolidated package of services to individuals at the nursing home level of care whether they were seeking institutional placement. The three other projects attempted to upgrade the home care package available to Medicare recipients, though they sought to serve differing subgroups among those aged and impaired in the community.

Associated with these differences in intervention goals were differences in the definitions of project eligibility and the mechanisms for client identification. Consistent with a target on nursing home eligible patients, both On Lok and South Carolina served relatively highly disabled client groups. By contrast, the New York City, San Diego, and Project OPEN client groups differed markedly in response to varied functional criteria for eligibility. These differences in averaged client disability were not associated with differences in traditionally covered service use. Project effectiveness in changing nursing home or hospital use also appeared unrelated to averaged client disability. The program that identified clients through nursing home application, however, significantly reduced nursing home use through diversion to moderately intensive case managed community care. With similarly disabled clients identified because of presumed risk, On Lok and New York City did not. These results suggest that offering case managed and expanded community long-term care services to Medicaid nursing home applicants may reduce their use of nursing homes, while offering similar services to equally frail individuals who are not actively seeking nursing home admission does not. These results underscore the importance of considering both how potential clients will be identified and functional criteria in targeting community care programs.

Based on these results it would appear that some goals may be more reasonable than others for case managed expanded community-based long-term care. The South Carolina findings suggest that diversion of nursing home applicants can be achieved by providing pre-admission screening and case managed alternative services. Even without a formal pre-admission screening program, one project in New York State (Birnbaum et al., 1984) achieved similar results by identifying potential participants in hospitals at the point of nursing home application. By contrast, for individuals who are not seeking nursing home care, maintaining community tenure or avoiding hospitalizations seem to be more difficult goals to achieve through Medicaid or Medicare coverage of case managed expanded services or consolidated delivery.

The results of the national evaluation do not suggest that community care services are ineffective in changing patterns of nursing home use. In all cases, project comparative group members were able to access some similar services through existing public programs and informal community arrangements. To illustrate, in Project OPEN it appeared that control group members were using nearly identical packages of community care delivered by existing agencies and reimbursed either out-of-pocket or through other public programs (Sklar & Weiss, 1983). Yet the national evaluation findings do suggest that expanded Medicaid or Medicare coverage and case management of these community-based services may only impact on nursing home use when they are offered to individuals identified through nursing home application.

Because no project achieved significant reductions in acute care days, the results would appear to suggest that case management and the primarily paraprofessional home care services offered through the demonstrations were not effective in altering patterns of hospital care use. It is noteworthy that the functional status and demographic variables were not successful in predicting hospital use in any project, even though these factors were the basis for program target group definitions. As a result, the projects provided few clues regarding the intervention strategies or targeting approaches that might be most effective in impacting hospital use. Research and demonstrations related to the predictors of hospital use among long-term care recipients are still required, particularly in light of Medicare's new prospective payment system.

It is important to note that even if projects were not successful in reducing institutional service use when mechanisms for identification other than nursing home application were used, they may still have met real service needs or fostered better maintenance of functioning or quality of life. Demonstrations and research regarding community-based long-term care still need to address the package of services, financing approaches and case management systems that can most cost-effectively achieve such functioning and quality of life goals for community long-term care users with little short-term risk of nursing home placement.

References

Arnsdorf, M. S., & Zawadski, R. T. (1983). *On Lok's CCODA: A cost-competitive model of community based long-term care*. San Francisco: On Lok Senior Health Science.

Birnbaum, H., Gaumer, G., Pratter, F., & Burke, R. (1984). *Nursing home without walls: A final report*. Cambridge, MA: Abt Associates, Inc.

Bruckman, D. K., Brown, T. E., & Leaner, R. N. (1985). Four years of community long-term care project: The South Carolina experience. *Pride Institute Journal, 3*, 30–49.

Chapman, J., Haskin, I. B., DeGraff, B., Bernstein, J., Daro, D., Hanson, S., Kogan, D., Pless, N., Ratte, S., Yordi, C., & Spivack, S. (1984). *Evaluation of coordinated community-oriented long-term care demonstrations: Final report*. HCFA #500-90-0073. Berkeley, CA: Berkeley Planning Associates.

Chapman, J., & Spivack, S. (1984). Issues in developing a cross-cutting data set for evaluating community-based long-term care delivery systems. *Priorities in health statistics* (DHHS, Publication No. PHS 81-1214). Washington, DC: National Center for Health Statistics.

Cohen, J., & Cohen, P. (1984). *Applied regression/correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Garland, R., Bennett, R., & Wilder, E. (1981). Re-evaluating the place of evaluation in planning for alternatives to institutional care for the elderly. *Journal of Social Issues, 37*, 51–81.

Hill, D., & Pinkerton, A. (1984). *Final report: The long-term care project of North San Diego County*. San Diego: Allied Home Health Association.

Horowitz, A., Brill, R., & Dono, J. (1984). *Delivery of medical and social services to the homebound elderly: A demonstration of inter-system coordination*. New York: New York City Department for the Aging.

Kahn, R. (1960). The relationships of mental and physical status in aged institutionalized person. *American Journal of Psychiatry, 117*, 12–124.

Kaufman, M. (1980). Social policy and long-term care for the aged. *Social Work, 25*, 37–62.

Katz, S., Ford, A., Moscovitz, R., Jackson, B., & Jaffe, M. (1963). Studies of illness in the aged — the index of ADL: A standardized measure of biological and physical function. *Journal of the American Medical Association, 185*, 914–919.

Kistin, H., & Morris, R. (1972). Alternatives to institutional care for the elderly and disabled. *The Gerontologist, 12*, 139–142.

Lawton, M., & Brody, E. (1969). Assessment of older people: Self maintenance and instrumental activities of daily living. *The Gerontologist, 9*, 179–186.

Pfeiffer, E. (1975). A short portable mental status questionnaire for the assessment of organic brain defect in elderly patients. *Journal of the American Geriatrics Association, 23*, 443–446.

Skellie, A., Mobley, G., & Cohen, E. (1982). Cost-effectiveness of community-based long-term care: Current findings of Georgia's alternative health services project. *American Journal of Public Health, 72*, 353–358.

Sklar, B., & Weiss, L. (1983). *Project OPEN: Final Report*. San Francisco: Mount Zion Hospital and Medical Center.

United States General Accounting Office (1982). *The elderly should benefit from expanded home care but increasing these services will not ensure cost reduction* (Report No. GAO-IPE-83-1). Washington, DC.

United Sates National Center for Health Services Research (1984). *National health care expenditures study: Person with limitations in activities, health insurance expenditures and use of services* (Data Preview 14, DHHS No. 94-3363). Bethesda, MD.

Weissert, W., Wan, T., & Liverato, B. (1980). *Effects and costs of day care and homemaker services for the chronically ill: A randomized experiment*. National Center for Health Services Research, Hyattsville, MD: (DHEW Publication NO. (PHS) 79-3258).

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For the past 2½ years, four Social Health Maintenance Organization (SHMO) sites have been delivering integrated, prepaid, acute, and chronic care to Medicare beneficiaries. Because SHMOs enroll a mix of able-bodied and frail members, sites have had to develop systems for identifying disabled members who may qualify to receive expanded chronic care benefits. Selection criteria for targeting expanded benefits, and their implementation affect costs, outcomes, and equity. Described are the sites' targeting policies and analyzed are the complexities of operationalizing targeting systems in four different settings.
Key Words: Long-term care, Chronic care, Case management, Medicare, Community care

Targeting Expanded Care to the Aged: Early SHMO Experience[1]

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Overview

In an era of tight budgets and an aging population, the major policy challenge in long-term care is to find ways to finance and deliver high-quality chronic care services at acceptable and predictable costs. Advances are especially needed in community care; that is, personal care and household assistance services delivered in the home or in day settings. Also needed are better integration of community care with nursing home and hospital care, as well as with informal support from family and friends. Improvements in services and financing would provide more resources and options for dealing with chronic illness and could reduce strain on families, unwanted nursing home admissions, out-of-pocket costs, and Medicaid spend-downs.

The National Social Health Maintenance Organization (SHMO) Demonstration was designed to expand prepaid coverage of community and nursing home care in a controlled manner and to link these expanded care services with a complete acute care system. In the demonstration, health and long-term care providers at four sites developed integrated medical and chronic care systems which are financed on a prepaid, capitated, at-risk basis through monthly premiums from Medicare, Medicaid, and enrollees. Because SHMOs seek to enroll a cross-section of aged Medicare beneficiaries, their heterogeneity and prepaid financing allow SHMOs to establish an insurance risk pool to pay for the expanded chronic care benefits. Over 14,000 Medicare beneficiaries have enrolled in the four test sites in the 2½ years since March 1985. All new members have been surveyed for disability and health status and found to be roughly representative of the community Medicare population in terms of health and disability status. About 800 of the 14,000 members currently receive chronic care services. As in most previous long-term care demonstrations, chronic care services are managed by an identifiable unit of case managers. The Health Care Financing Administration has extended the demonstration through late 1990.

Two key policy and practical questions are raised by the targeting systems, which are central to the success of the SHMO as well as other programs that offer similar expanded care benefits. First, what are the criteria for eligibility for expanded care benefits? The general issue is whether to target narrowly on the most severely disabled or, more broadly, to include moderately disabled, as well. Second, how are disabled members who potentially meet these eligibility criteria identified in the larger population? The need is to develop efficient and equitable systems for identifying members who might qualify, both those disabled at entry and those who become disabled. Because SHMOs enroll a cross-section of able-bodied and disabled beneficiaries, the experiences and cost outcomes concerning these targeting decisions are relevant to other public and private efforts to serve broader populations in an insurance framework.

Detailed is how four separate sites have implemented their targeting systems within the constraints

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and direction of a national demonstration. Explored is how the SHMO model has been operationalized differently to conform with the situations and preferences of local providers. At the same time, shown is how requirements of a central policy can be included and maintained. Data included observations of the SHMO demonstration since its outset and responses to interviews by case managers and the staff they work with at hospitals, nursing homes, home health agencies, the SHMO medical groups, and plan administration at the four sites during mid-1986.

Explored are related issues in three companion papers in the first (Kane et al., in press), based on the on-site interviews, the multiple influences on care plans is highlighted, emphasizing the unique contribution of the SHMOs in shedding light on the topic from a perspective of close interaction between case management and primary health care. The second (MacAdam et al., in press) is a quantitative analysis of who is selected to receive expanded care services. Health and demographic data are used from the Health Status Form (HSF) completed by all new SHMO members to assess which members were selected to move through key stages of the screening, assessment, and care planning processes. The third (Greenberg et al., 1987) is a report on the initial enrollment, utilization, and cost experience of the four sites.

Targeting Expanded Care in the SHMO Environment versus Prior Programs

Targeting can be thought of as successive steps of screening and sorting the population into categories for different treatment. Capitman et al. (1986) have identified five components of case management. Targeting includes the first two, screening and assessment, and the decision to move to the third, care planning. Targeting lays the groundwork for the prescription aspect of care planning, as well as for the last two components, service arrangement and monitoring/counseling.

Targeting issues are at the heart of the debate about the costs and impacts of earlier community care demonstrations. A criterion many have used for assessing success has been effectiveness in controlling net system costs by substituting community care for institutional care (Capitman, 1986). On these grounds, which in current parlance essentially amount to being budget neutral, almost all programs have been found not to be cost-effective. Nursing home and hospital use have seldom been reduced much, if at all, and in almost all cases the costs of community care have more than offset any institutional savings. Moreover, although there is some evidence of increased satisfaction, there has been no clear pattern of benefits in other areas, including morbidity and mortality.

Nursing home substitutions have been limited because in the programs services have been targeted to groups that were unlikely to enter nursing homes (Capitman et al., 1984; United States Government Accounting Office, 1983). Weissert's (1985) analysis of comparison group data indicated that most programs served clienteles that had only a 5% to 25% chance of entering a nursing home during the first 6 to 12 months of using community care services. Also, most who did enter nursing homes were short-stayers; that is, they left within a few months of admission and their diversion could not yield long-term savings. An alternative is targeting on long-stayers, but this is likely to involve costly screening techniques as well as some sacrifice of equitable treatment: Just because a person has little likelihood of a long-term nursing home stay does not mean he or she does not need services.

In summary, much has been learned, but the jury is still out regarding the right targeting policies. It is not clear that budget neutrality should be the primary goal of targeting, but it is less clear what other goals should be or how they can be implemented. One virtue of the SHMO as a research and demonstration setting for targeting is that the many facets and the consequences of decision-making are brought into the open.

First, the SHMO delivers not only community-based long-term care, which has been the concentration of most prior demonstrations, but is also responsible for a full range of acute medical and nursing home services. Thus chronic care services must be targeted in concert with targeting physician, hospital, and skilled home health and nursing home care, which introduces the need to develop new types of targeting definitions as well as more comprehensive service coordination.

Second, the SHMO membership includes a mix of both able-bodied and frail members. In contrast to prior long-term care programs, which have operated on a demand-screening basis where referrals are screened for eligibility, the SHMO has to deliver appropriate care to a broad mix of members. It is necessary to clearly think through when and how members will be identified and who may need different kinds of services, rather than waiting for demand.

Third, SHMOs must manage all services, including all Medicare-covered benefits, as well as the expanded care entitlement, within a fixed budget. They must therefore consider targeting in the context of the full range of costs and benefits in addition to the goals of nursing home and hospital substitution. SHMOs must determine how broadly and explicitly to define target groups, what services to offer them, and how intensively they can afford to serve them, given limited funds and multiple demands. So far the experience has revealed that targeting issues must be considered in the larger context of a delivery and financial system with multiple needs, constraints, and opportunities. Indeed, a SHMO's targeting criteria and processes are likely to affect a variety of program areas.

Direct costs and cost offsets of both services and administration must be considered. Expanded care needs to fit into particular delivery systems and be congruent with organizational auspices and goals. Each setting presents different opportunities and

constraints for downward substitution of services, including community care for nursing home care and nursing home for hospital.

Efficiency in effort spent sorting members into categories is necessary. The sorting must also be strict and consistent enough to satisfy management desires to keep costs within prospective budgets.

Equity and effectiveness is essential in identifying target categories and assuring that similar needs receive similar treatment and dissimilar people receive dissimilar treatment. Expanded care targeting also must be flexible enough to satisfy staff desires to meet individual patient needs.

Prevention by treating impairment during early stages may yield later benefits. Expanded care impacts need to be considered in long-term perspective because members' future costs are likely to be the plan's.

Marketability through appeal to the needs and desires of consumers is a prerequisite for survival. Expanded care in the SHMO must be a part of a product that can be successfully marketed, can meet consumer expectations, and can maintain member satisfaction and retention.

Fourth, in determining the targeting of expanded care, the SHMO has the additional problem of defining the insurable event and deciding who should define it. In the SHMO the potential recipients of long-term care services have a special relationship with the care organization. As a result of having purchased health insurance, including benefits for long-term care, the members have an entitlement to services under the conditions created by the program. This entitlement is similar in concept to the members' entitlement to Medicare benefits, but in operation very different territory is covered. The Medicare benefit covers acute and skilled care services, the eligibility conditions for which have been defined by a large body of practice, regulation, and review. The expanded care benefit covers chronic care, which has been defined largely by default, i.e., what Medicare excludes. As with current Medicare benefits, however, the decision process involved in targeting such an entitlement must be explicit because once any member has been served in a given set of circumstances, all other members probably have a substantial claim, if not a legal right, to receive services in the same circumstances. The consequence is that there is less room for tightening of criteria as finances change and there is less room for accepting patients using clinical judgment criteria that leave significant room for individual interpretation.

Finally, although the experience of the demonstration may not resolve the debate about broad versus narrow targeting, it may point to some ways out of it. Because the SHMOs' expanded care benefits are financed out of savings from current Medicare spending plus a private insurance premium paid by members in a competitive market, the cost-effectiveness of expanded care need not be measured narrowly by whether it can be financed out of nursing home and acute care hospital savings. Rather, the new benefits can, in the words of Challis and Davies (1981) be "valued in their own right." One way this value is measured is by individuals who choose to join and to pay higher premiums than those charged by much of the competition. Another way to measure value is through the political process and there is growing interest in Congress in better community care.

The SHMO Settings

Organization

As shown in the top portion of Table 1, the Seniors Plus and Kaiser Permanente sites are sponsored by established HMOs, whereas Elderplan and SCAN are new HMOs initiated by long-term care organizations. Thus, at the former two sites, the SHMO is essentially a new benefit program for the existing HMO, but at the latter two, the new HMO and SHMO are one and the same. Having to start new HMOs with new expanded services has been a major challenge for the latter two sites.

The differences between the HMO-based and new SHMO sites are also reflected in the location of the

Table 1. Site Characteristics

	Elderplan	Kaiser Permanente	SCAN Health Plan	Seniors Plus
Location	Brooklyn, NY	Portland, OR	Long Beach, CA	Minneapolis, MN
Type of sponsor	Comprehensive LTC organization	HMO	Case management agency	Comprehensive LTC organization & HMO
Type of SHMO	Own HMO	New benefit program	Own HMO	New benefit program
Location of CM unit	HMO Hqtrs	Research center	HMO Hqtrs	In SNF near home care unit
Total members (6/86)	1488	4150	1624	1285
Monthly member premium	$29.89	$49	$40	$29.50
Expanded Care Benefits				
–Home & community	$6500/yr	$1000/mo	$7500/yr	$6250/yr
–Nursing home	$6500/yr	100 days/spell*	$7500/yr	$6500 lifetime
–Overall limit	$6500/yr	$12000/yr	$7500/yr	$6250/yr
–Home care co-pay	$10/visit	10% of charges	$5/visit	20% of charges

*per spell of illness. New spell can start after 60 days of living at home.

case management units: At Elderplan and SCAN, case management is located with management among the confusion and excitement of new and growing HMOs, in sharp contrast to quieter, more controlled atmospheres in Portland and Minneapolis, where case management is located at some distance from other management functions.

As shown by the enrollment figures in the middle of Table 1, Kaiser Permanente initially pulled far ahead of the other three sites in overall membership. Despite having the highest monthly member premium ($49) of the four sites, Kaiser Permanente had over 4,000 members about 15 months into operations (June 1986) as compared to an average of a little less than 1,500 for the other three.

Benefits

The demonstration required each site to offer all Medicare-covered services, a range of ancillary medical services, plus a full array of expanded community care and nursing home services for chronic conditions excluded by Medicare, HMOs, and Medicare supplementary insurance. These expanded care services include personal care, homemaker service, day care, respite care, transportation, and institutional care. The way these expanded care benefits are structured forms the context for targeting.

Due to the limits of Medicare and insurance financing, the SHMO's expanded care benefits for private-pay members are controlled through a variety of benefit caps and benefit statuses. As shown in Table 1, there are two basic models for caps. Elderplan and SCAN have integrated their caps for community and nursing home services. That is, a set annual dollar amount is available to the member in either setting or any combination of the two. The annual limits are $6,500 at Elderplan and $7,500 at SCAN. In contrast, Kaiser Permanente and Seniors Plus have separated their community and nursing home caps and have defined each differently. For all settings and services combined, however, each of these two sites also has an overall annual limit: $6,250 at Seniors Plus and $12,000 at Kaiser Permanente. All four sites charge co-pays, which vary in level and structure.

It should be noted that Medicaid members are eligible to receive higher levels of expanded care benefits at Elderplan and Seniors Plus due to higher reimbursement from Medicaid agencies (see Leutz et al., 1985). These differences are ignored here because the bulk of memberships at all sites are private-pay and the targeting issues are handled the same way for both private and dual-eligible members. More information about the SHMO sites and other demonstration features are described in detail by Leutz et al. (1985) and in a shorter version in Greenberg et al. (1985).

Screening and Assessment: Processes and Criteria

All sites were required to employ a common process for identifying and assessing members for possible need for expanded care services. In a program offering long-term care to an enrolled population of both frail and able-bodied individuals, such screening and assessment systems appeared necessary for cost control as well as for assuring prompt, efficient, and equitable identification of need.

The SHMO screening and assessment system has five basic steps: (1) the queuing questions on the enrollment form, which have been used by 3 of the 4 sites, (2) a self-report Health Status Form (HSF), which is mailed to new members and required annually thereafter; (3) a telephone screen for those who appear on the HSF to be at risk; (4) a Comprehensive Assessment Form (CAF), which is a face-to-face assessment of those at risk administered by the case manager in the member's home; and (5) a care plan and services for those who qualify. This common screening and assessment process thus is used to reach out to the pool of applicants (at three sites), then to the entire new membership, and finally to sort down to the most disabled. In the process it also gives the demonstration a common database (Abrahams et al., in press). This system is described in detail in the next section.

In contrast to this demonstration-wide, 5-step process for targeting, there were no requirements about eligibility criteria for expanded care. The discussion of criteria shows that the site leaders made very different choices about whom to serve.

Processes

As illustrated in Figure 1, the demonstration has used a common protocol for screening new members for need for expanded care services.

Queuing to Control Case Mix

The SHMO offers chronic care benefits that are not available from any of its competition in the Medicare supplement market. It can be hypothesized that such benefits are especially attractive to beneficiaries who are already disabled and that the SHMO may be prone to adverse selection under the continuous open enrollment requirements for Medicare HMOs. Because the source of financing for chronic care is an insurance pooling of private premiums and savings on hospital services, the SHMO needs to enroll a membership that is no more impaired than a cross-section of the aged population.

In recognition of these risks, HCFA allowed SHMO sites the discretion to queue applicants according to a self-report of disability status on the application form. Two questions covering need for assistance in activities of daily living and mobility are allowed. Quotas were set based on national and regional data on the prevalence of severe and moderate disability on these measures (see notes to Table 1 and Leutz et al. [1985] for definitions). Sites can accept new members if there is room in their queue category or can put the member on a waiting list until there is an opening. Only Kaiser chose not to queue. The other three sites have queued at least part of the time, during periods when disabled applicants outnum-

bered openings in the disabled quotas (Greenberg et al., 1987).

Queuing has proven to be an effective way to manage case mix at the three sites that have used it. As shown in Section 1 of Table 2, all have enrolled and maintained a case mix roughly representative of aged Medicare beneficiaries in the community according to three categories: a small group (5% to 8%) of severely disabled; a somewhat larger group (7% to 14%) of moderately disabled; and a large majority (80% or more) of able-bodied or only mildly disabled.

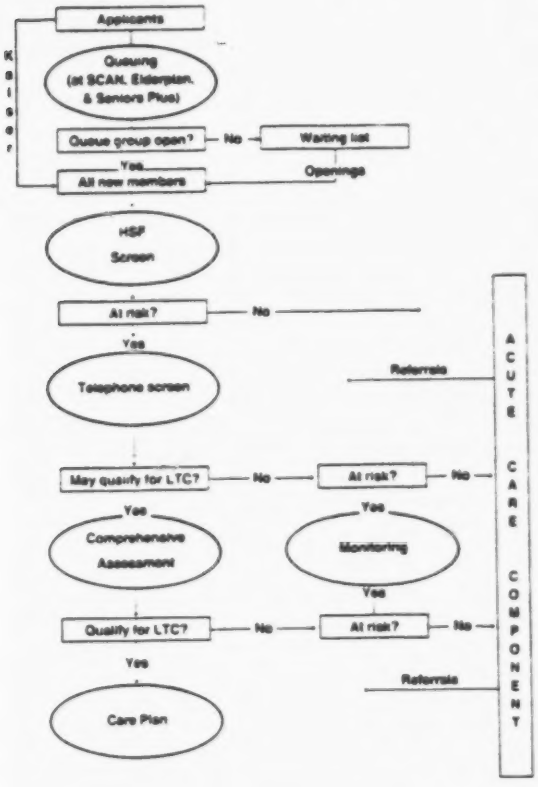

Figure 1. SHMO chronic care targeting process.

Kaiser Permanente data are not available on current caseload, but data reported by new members on the initial Health Status Form indicated a similar case mix at this site (MacAdam et al., in press). Kaiser's similarity is shown in Section 2 of Table 2, in which are reported the percentages of members who are nursing home certifiable (NHC) according to each state's Medicaid pre-admission screening criteria. Here the proportions are very similar across sites, ranging from 4.6% at Elderplan to 5.5% at Kaiser Permanente. Additional enrollment and case mix data are available in Greenberg et al. (1987).

Health Status Form (HSF) Sent on Acceptance

Once an applicant is found eligible to join the SHMO and is accepted for membership, the next step in the sorting process begins. All new members are sent the uniform 43-item HSF, in which basic social, health, and functional information is collected. The forms are screened by the case management unit according to a set of long-term care risk criteria. Particular responses on any of about 15 items will automatically trigger a phone call and responses that indicate the member has 2 or more ADL limitations or is bedbound will automatically trigger a comprehensive assessment. The case management unit takes no further action on those determined to be not at risk. They are treated as needed in the medical component of the SHMO, but they may later be referred back to the unit if needed (as is detailed later). A shorter version of the HSF is sent out to members on the anniversaries of their initial enrollment.

Although there are some limitations and also a need for continuing research, the HSF is apparently an effective and unbiased first-stage tool for identifying those at risk. First, a majority of HSFs are returned

Table 2. Case Mix and Rates of Expanded Care Eligibility

	Elderplan	Kaiser Permanente	SCAN Health Plan	Seniors Plus
1. Case mix[a]				
-Severely disabled	5.2%	na	6.0%	8.3%
-Moderately disabled	7.3%	na	14.0%	11.5%
-Mildly or non-disabled	87.5%	na	80.0%	80.2%
2. Proportion NHC[b]	4.6%	5.5%	4.9%	5.1%
3. Proportion of total members receiving expanded care	3.4%	3.0%	13.9%	9.0%
4. Ratio of number of members receiving expanded care to number severely disabled	0.65	na	2.31	1.09
5. Ratio of number of members receiving expanded care to number of NHCs	0.73	.55	2.83	1.77

[a]Case mix data are based on each site's estimate of the case mix of its membership as of 5/1/86. All sites but Kaiser maintain up-to-date case mix data for queuing purposes. A severely disabled member requires assistance with ADLs or is bedbound. A moderately disabled member is not bedbound or in need of help with ADLs, but must stay in the house all or most of the time, needs help of another person in getting around, needs device (cane or wheelchair) to get around, or has trouble getting around freely. Mildly or non-disabled members do not have trouble getting around freely.

[b]NHC = nursing home certifiable.

within 2 weeks of being sent to new members and the completion rates for almost all items on the HSF are also high. An ultimate high return rate (90% or more) is achieved only after one or two letters or phone calls from support staff. Second, using the HSF seems to identify severe disability quite reliably. Analysis of annually required HSF follow-ups at Kaiser Permanente indicated that members in all these categories are usually picked up through internal referrals: of 2314 annual HSF follow-ups returned by one cohort of members, only 21 people were found to need a comprehensive assessment (the rest were either known to the case management unit or were found in the phone screen to not need expanded care). Only four types of members may be missed: those who do not return the form, those who fill out the form inaccurately, those whose condition has changed since completing the form, and those with mental impairments.

Mental impairment has been especially difficult to identify on the HSF. The initial HSF does not ask for a direct assessment of mental impairment. Instead the screener relies on apparent confusion in how the form is completed, prescriptions for psychotropic drugs, or assistance in completing the form as indications to be probed in phone screens. Although with the former two, some people with mental confusion are identified, in practice the latter has turned out to be an inefficient screen because nearly one-fifth of the new members receive help completing the form and many have been found to be unimpaired. The shorter HSF used for annual follow-up has been revised to ask directly whether the member is "under treatment for mental health problems" and now includes a question on severe memory loss.

Phone Call to Those Possibly at Risk

Those determined to be potentially at risk receive a phone call from the case management unit. The phone screen is a crucial decision-making point because it takes place soon after the member enters the SHMO. Although the initial concept of the phone screen was to verify information on the HSF and to probe for service need and eligibility criteria, it has also served as a vehicle to identify mental impairment, provide information about SHMO services, and arrange for the comprehensive assessment. Screeners estimate that as many as 30% of the new members have been phoned at some sites, although there is a great deal of variation among sites and there has been some decline in proportions called as case loads have increased. Those who are at potential risk but do not meet criteria for services may be put in a monitoring status for periodic follow-up.

A great deal can be learned about impairment levels and needs from the combination of the HSF and phone screen, including a good sense of whether the member will be nursing home certifiable (NHC). NHC status is highly predictive of need for care and, in fact, two sites use it as a key eligibility criterion. Because the comprehensive assessment is demanding of time and energy for both members and case managers, staff at all sites seek to avoid implementing it unnecessarily (i.e., when it is unlikely to lead to an NHC designation or use of expanded care benefits).

The determination of need for expanded care is based on the eligibility criteria used at each site and on a clinical evaluation of the deficit between a member's needs and resources. Information from the HSF that triggers a telephone screen is focused on ADL and IADL deficits, current use of home and community services, use of adaptive equipment, severe health problems, and any indications of mental impairment. Telephone screen questions are used to elicit detailed information on deficit levels, resources available, and problems in meeting current needs. Such problems may include weaknesses in informal care, financial resources, knowledge, or ability to access needed help or services, either formal or informal.

Although personnel in all sites use much the same set of criteria to screen HSFs, with the telephone screen they hone in on their particular expanded care eligibility criteria (which will be detailed later). This means a different focus and intensity of questioning at each site. Whatever the criteria, staff reported that they can make their eligibility determinations with a great deal of accuracy through the combination of the HSF and the telephone screen. There are few surprises when they get into the home for a comprehensive assessment.

The telephone screen is important not only for gathering information from members, but also for giving them information. Screeners make sure frail members understand procedures for choosing doctors and making medical appointments, explain lock-in and benefits, and give them names and numbers to call if they need help. Both Kaiser Permanente and Seniors Plus reported that they make a special effort to explain these issues to disabled members who are new to their HMOs. This seems an important service for the frail members, whether or not they qualify for expanded care.

In-Home Comprehensive Assessment for Those Probably at Risk

Those who may qualify for expanded care receive a home visit. During the visit the case manager conducts the comprehensive assessment, discusses SHMO services, assesses attitudes towards formal services, and is likely to meet informal caregivers. In-home assessments take between 45 and 90 minutes, with variation reported by case manager and member situation. Research questions make the Comprehensive Assessment Form (CAF) considerably longer than would be needed solely for clinical purposes, as does the need to gather data required to determine NHC status. To develop care plans, case managers generally obtain information on mental status and informal support beyond that elicited by the CAF questions (e.g., identifying who is most reliable, best for a job, or provides the best feedback). Case managers make the NHC determination subject to outside review. The accuracy and reliability of assessment data are high (Abrahams et al., in press) and

members are often favorably impressed by the time and care that is spent during the assessment process.

Informal caregivers are almost always in attendance at the comprehensive assessment, whether or not they are invited by the case manager. This is generally helpful, because case managers would contact them anyway to develop an assessment and care plan. Interviewers reported that they are usually able to obtain the member response when needed simply by saying, "This question is for (the member) to answer." At times there are difficulties, especially in relation to the patient's assessment of the reliability of informal support.

Care Plan and Expanded Care Services for Those Who Qualify

For those members found to need and qualify for expanded care after the comprehensive assessment, a care plan is developed. Care planning takes place through formal and informal channels. Planning begins during and after the comprehensive assessment. As a natural outgrowth of having reviewed them in the assessment, needs are determined and ways of meeting these needs are discussed with the member and informal caregivers. The degree of specificity of planning at the time of the interview differs across sites and across individual case managers, but the general pattern is that the outlines of a care plan are more likely to be discussed at that time with members who will clearly qualify for services, have obvious or pressing needs, and when the member and family are ready to accept help. Final planning and preparation for service authorization take place back at the office.

Eligibility criteria are used to determine the pool of members who are evaluated for unmet needs and may also influence the allocation of different types of services. For example, the moderately disabled (who are more likely to live longer than the severely disabled) may need more of certain types of services such as transportation, whereas the severely disabled may need higher intensity services such as personal care workers or even live-in attendants. Sites that provide limited services for the moderately disabled, such as transportation to and from medical appointments, may even place these members in a monitoring status, requiring only infrequent contact.

It is important to make explicit two aspects of the SHMOs' systems for screening, assessment, and care planning. First, there is no formal claims process initiated by the member. The SHMO has the responsibility and takes the initiative to find members eligible for care, so members need not do anything to file their claim except to agree to be assessed. Second, the case management unit, not the physician, has control and authority to determine eligibility and to authorize benefits for expanded care services. Members may, of course, refuse assessments and services when they are offered.

Eligibility Criteria

Although the demonstration established common protocols for screening and assessment instruments and processes, it set no limitations on the selection criteria employed. In other words, although each site sorts members according to the flow chart shown in Figure 1, each uses somewhat different selection criteria at each decision point. These selection or eligibility criteria are the keys to targeting because they are used to determine which individuals, out of the larger membership, actually receive expanded care benefits.

Each SHMO has had to consider the range of need among the membership and then decide which conditions and circumstances will qualify a member for different types or levels of care. These criteria cover the severity of disability and the types of disability that make members eligible. There are many possible approaches for defining criteria and choices must be made with considerations of overall costs, consistency, prevention, consumer expectations, and the entitlement nature of the benefit.

As shown by Figure 1, once applicants are accepted as members, the sites develop three basic levels of service from the expanded care benefit: fully eligible, requiring monitoring, and needing no further follow-up. Each site's eligibility criteria and the impact the criteria have on who receives service are discussed in ensuing sections. Essentially, the sites are trying three models: narrow rules, broad rules, and implicit rules. The names imply that the different sets of rules could lead to different proportions of memberships being served and it has been shown by initial data that this is the case.

Narrow Rules: Elderplan and Kaiser Permanente

Kaiser Permanente and Elderplan limit eligibility for expanded care benefits to nursing home certifiable (NHC) members. To determine NHC status, Elderplan uses New York's DMS-1, which is used to weigh certain types of disability and health treatments using a 60-point eligibility threshold on an open-ended scale. At Kaiser Permanente NHC status is determined by scoring above defined thresholds on any one of eight areas of need. (More detailed descriptions of the NHC items at all four sites are found in Leutz et al. [1985].)

There are many apparent differences between the New York and Oregon NHC systems in the relative weighting of items. Half of the Oregon item thresholds would not qualify a member for expanded care at Elderplan and many combinations of conditions that exceed the scale in New York would not qualify a member at Kaiser Permanente. It does not follow from these differences, however, that Kaiser Permanente and Elderplan are serving substantially different populations, because most NHC members far exceed the requirements of the scale and number of thresholds (Leutz et al., 1986). Future researchers may find that most of those classified as NHC at any one site would qualify as NHC in any other site.

Strict rules for eligibility have broad support at Kaiser Permanente and at Elderplan. Both have sought to interpret the rules strictly, and Kaiser Permanente staff, perhaps reflecting their Research Center setting, have gone to the greatest lengths in

specifying explicit criteria for eligibility thresholds, a task that is eased by having only eight clearly defined areas to assess. Management and case management staff recognize the need for cost control and welcome a set of expanded care eligibility standards that are clear to members, families, and themselves. One manager has said that case managers are "saving people" and the strict criteria make it easier to "say no."

Flaws in the rules can cause problems, however, and this is more apparent at Kaiser Permanente than at Elderplan. Kaiser Permanente's NHC criteria for expanded care eligibility can qualify some individuals not needing expanded care and fail to qualify others needing care. The former occurs primarily due to the low incontinence threshold, which is one of the eight areas, and which only requires incontinence, not functional problems with incontinence. The latter occurs because some very needy patients cannot be fitted into the limited number of categories. Because of its strict and explicit interpretation of qualifying items, Kaiser Permanente has had to deny expanded care to some members who clearly needed service, those, for example, who are simply very frail. Some of these difficulties are likely to change because a revised set of categories based on new Oregon NHC criteria went into effect in January 1987. Since that time case managers have also been given authorization for a limited number of experimental exemptions to allow service to very needy members who fail to qualify. A close documentation and review of the exemptions may lead to an expansion of eligibility criteria.

Broad Rules: SCAN Health Plan

To be eligible for expanded care at SCAN, a member must be either moderately disabled or severely disabled. This is a broad sorting criterion, because the two groups comprise about 20% of the SCAN membership (see Table 1 for definitions and proportions). Moderately and severely disabled members are subdivided into active (i.e., eligible for services) and inactive statuses. Almost all the severely disabled are considered active, whereas the moderately disabled are reported as inactive if their needs are met through informal care or are reported as active if they have unmet needs. Unmet need is determined by clinical judgment based on an evaluation of deficits and resources.

There has been considerable debate among staff at SCAN about whether to drop the moderately disabled from expanded care eligibility. On the one hand, focusing only on the severely disabled would clearly save the site resources, perhaps as much in screening and assessment costs as in services. On the other hand, there are needs among the moderately disabled that expanded care can often meet at relatively small cost per person served: Staff believe there are prevention benefits in serving some moderately disabled, and, not least, member satisfaction, marketing, and retention benefits may accrue from the broader eligibility definition. The concept of need among the moderately disabled is imprecise, however, and preventative care benefits are difficult to document.

Implicit Rules: Seniors Plus

Eligibility for expanded care at Seniors Plus is formally the same as at Elderplan and Kaiser Permanente in that the member contract limits eligibility to those who are NHC. Following the HMO concept of administrative benefits, in practice however, the site has allowed frequent exceptions to the NHC rule based on the judgment of the case manager and case management director. Site planners decided that there was not sufficient knowledge about service eligibility criteria to lock themselves into a definition that limited the exercise of discretion by the professional staff. The site plans to develop more explicit eligibility rules from research on experience.

In contrast to SCAN, Seniors Plus seems in no hurry to tighten its eligibility system. Case managers reported being pleased with the flexibility to be creative. One values the "license to be idealistic" in care planning. Another finds the flexibility of the benefit package one of the most satisfying features of the job: "There's money in my pocket." Expanded care costs are only slightly over budget and managers are not ready to say that the budget is too high.

Impact of Rules: Who Gets Served?

Data from the SHMO Consortium's Management Data Set allowed a quantitative assessment to be made of the impact of the narrow, broad, and implicit eligibility criteria. Shown in line 3 of Table 2 are the proportions of total membership of each site receiving covered expanded care services. The proportions receiving expanded care at the two broad rules sites, Seniors Plus and SCAN, are about three times higher than at the narrow rules sites, Kaiser Permanente and Elderplan.

The effect of case mix is controlled in the entries in the 4th and 5th lines, in which are shown the relative extent of expanded care use according to the proportions of severely disabled (a common definition across sites) and NHC members in each site. At Elderplan, the number of active cases is only 65% of the number of severely disabled members. At Seniors Plus the number of active expanded care cases is only a little larger than the number of severely disabled cases, whereas at SCAN the number receiving expanded care is more than double the number of severely disabled. (Figures on the proportions of severely disabled are not available at Kaiser Permanente.)

As shown in the bottom line in Table 2, at Kaiser Permanente and Elderplan the numbers receiving expanded care are significantly smaller than the number of NHCs, whereas expanded care recipients far exceed the number of NHCs at SCAN and Seniors Plus.

One of the most interesting findings from these data is that the broad but rather explicit rules at SCAN have resulted in a wider scope of eligibility than the implicit rules at Seniors Plus, under which case managers' clinical judgment is more heavily

relied on. This may indicate that in the context of financial constraints of the SHMO model, staff can find and define relatively narrow limits to eligibility.

Some of the goals of the next stage of research on the SHMO are to better define the rules at the less structured sites, to compare the characteristics of the groups being served, and to analyze the cost impacts of different eligibility policies. Given the large differences in the types and proportions of members receiving expanded care services, this is clearly an area in which further understanding and clarity are needed. From a policy perspective, it is important to consider the extent to which the determination of eligibility criteria should be left to the provider (who in the case of the SHMO must market and manage the benefit and take risk for outcomes) as against being more closely defined by public policy through Medicare and Medicaid.

Monitoring

There are a significant number of members at all sites who are functionally disabled but who are monitored rather than given expanded care services. This lower level of activity with the expanded care unit received little attention during demonstration planning, either in terms of criteria for monitoring or how monitoring would be conducted. All sites have developed something called monitoring, but each has developed it a little differently. At sites with strict eligibility criteria, monitoring can be an escape hatch for arranging and maintaining a set of community services for those who do not qualify for expanded care in the SHMO. For disabled members with good family supports, monitoring can be a way to keep in touch to make sure supports are still in place.

As shown in Table 3, Kaiser Permanente and Elderplan, consistent with their narrow eligibility criteria, have what seem the narrowest criteria for monitoring; and, again, Kaiser Permanente has more explicitly defined its criteria than the other sites. SCAN's and Seniors Plus's criteria are also consistent with their broader and less structured eligibility criteria.

The usual methods and frequency of monitoring also vary considerably across the sites. Elderplan stands out, with monitoring conducted most frequently (generally twice a month) and by home visit by the case manager. At this level, monitoring is a substantial service, potentially encompassing case management and referral, counseling, assessment, and other assistance. The other sites conduct monitoring less frequently and almost always by telephone.

Although there are differences in the usual means of monitoring, there are similarities in monitoring according to need. This depends on a case manager's assessment of member vulnerability. For example, the more disabled members who cannot meet narrow eligibility criteria at narrow rules sites are monitored at a more intense level and monitoring may include considerable case manager effort in finding and referring members to community resources outside the SHMO benefit structure, as well as counseling and working with families.

Although monitoring is recognized as important, case managers have sometimes fallen behind in their monitoring schedules as total membership and caseloads have grown. Most sites have considered ways to reduce monitoring costs and time. At Kaiser Permanente the case management unit has discussed limiting monitoring to the first three criteria shown in Table 3. Seniors Plus considered but rejected using a case aide for all monitoring and has since implemented a monitoring system using volunteers. Kaiser Permanente is considering telephoning only those at greater risk (also, perhaps, through para-professional staff) and using the mail to maintain contact with the rest. Elderplan has considerably reduced the use of home visits for monitoring.

Ongoing Targeting: Finding Frail Members in the SHMO Service System

So far the paper has been focused on expanded care targeting systems for new SHMO members. Because the SHMO is responsible for an enrolled population over time, it needs to have a parallel system for identifying individuals who have become disabled since the initial enrollment period. Although the context for targeting current members is different, the issues are similar: equitably and effi-

Table 3. Monitoring: Criteria, Means, and Frequency

	Elderplan	Kaiser Permanente	SCAN Health Plan	Seniors Plus
Criteria	Close to NHC[a], esp. those who have received a comprehensive assessment but are not NHC	At risk of NHC, incl –very frail –Parkinsons, COPD[b] –non-SHMO serv coord –heart disease –recently widowed –poor informal support	Mod & severely impaired with adequate informal supports	At discretion of CM[c] – varies
Means	CM home visit	CM phone	CM phone or visit	CM phone or visit visit
Frequency	2/30 days	1/60–90 days	1/30–60 days	some 1/60–90 days some 1/6 months

[a]NHC = nursing home certifiable.
[b]COPD = chronic obstructive pulmonary disease (emphysema).
[c]CM - case manager.

ciently identifying all potential eligible members, screening referrals for those who need comprehensive assessment, developing and applying criteria to distinguish eligible members, and making plans for services or monitoring to fill unmet needs.

The most common point for changes in functional capabilities that may warrant expanded care is hospitalization, where needs for post-acute care are assessed by hospital social workers and discharge planners. Newly disabled members may also be identified, however, by physicians, emergency room personnel, home health nurses and social workers, member representatives, families, and other sources. To make ongoing targeting work, individuals in each of these positions must be aware that expanded care is available to the member, know something about eligibility, and know how to make a referral to the expanded care unit.

Because of differences in each site's service delivery network, it was much more difficult to plan a demonstration-wide system for ongoing targeting than it was for the pro-active HSF system. In fact, each site has developed and refined its internal system as it has gone along. How these referrals and decisions play out is largely a function of the scope, structure, and history of the service system at each site.

Not surprisingly, there are significant differences between the two SHMOs that have developed new HMOs and the two HMO-based sites in their systems for identifying and referring members who become frail. Elderplan and SCAN have each developed their systems in concert with their general development of growing and changing HMOs. Primarily for purposes of utilization control, they have sought to insert SHMO staff into key decision-making points in the acute care component. These staff are also well-positioned and well-informed for conducting ongoing targeting of expanded care.

In contrast, neither Seniors Plus nor Kaiser Permanente believed it was necessary to make substantial changes in already efficient HMO acute care systems. Therefore a major theme in these two sites has been to train non-SHMO staff to recognize SHMO members, to understand that they have special benefits, and to make appropriate referrals. This has worked well with staff in hospital discharge planning, nursing homes, and home care, but relatively poorly with physicians. This is largely because key staff in the former settings are limited in number, easy to identify, and often focused on similar patient issues. In contrast, physicians are numerous (about 400 in the Kaiser Portland region and over 200 in the clinics served by Seniors Plus) and just keeping them aware of a relatively small experimental program is a major task.

Before describing how each site has implemented its system for ongoing targeting, one issue that arises continually in internal targeting needs to be highlighted. This is how to distinguish where the acute or Medicare-type benefit for in-home and nursing home services ends (e.g., home health nursing) and the expanded care benefit for the same services begins. This is a difficult distinction to make, both conceptually and operationally. Conceptually, it should be recalled that the SHMOs offer expanded care as a supplement to Medicare-covered home health and nursing home services. The SHMOs' expanded care is very different, however, from conventional insurance and HMO medical supplements. Conventional plans are structured to fill in Medicare co-pays, deductibles, and length of coverage limits but maintain both Medicare's skilled care criteria as a condition of coverage as well as Medicare's standards for the types and intensity of services. In contrast, the SHMOs offer expanded coverage of home care and nursing home services for conditions that do not meet skilled care criteria and types of services and levels of intensity that go beyond what Medicare and other supplements cover. In the latter case, the SHMO may end up serving a member simultaneously from both the Medicare portion and the expanded care portion of the benefit.

To manage the expanded care benefit limit, calculate co-pays and assure coordination of care, the distinctions between Medicare coverage and expanded care coverage of the same types of services need to be made operationally. The distinctions must also be made to assure that members receive full Medicare benefits. SHMOs (and, notably Medicare HMOs) do not have the Medicare intermediary to fall back on to help make and, ultimately, review these decisions in a manner consistent with frequently changing and often arcane Medicare guidelines. Rather, each site has had to draw on the knowledge of its case managers and their colleagues in hospitals, nursing homes, and home health agencies to assess patient status relative to the guidelines.

Elderplan

As summarized in Chart 1, Elderplan has gone the farthest of all sites in making over the acute care service system. Its physician component is a small, new geriatric group that sees only SHMO patients, supplemented by a large panel of private practice specialists used on a referral basis. Most of the group attends weekly case conferences, making the medical team fully integrated with expanded care: It knows benefits, eligibility, and who is receiving expanded care services. The nurse practitioners often deliver primary care in home visits, sometimes accompanied by case managers. The specialist panel is less well integrated than the core geriatric group.

Because Brooklyn has one of the highest average lengths of stay for Medicare patients in the country, Elderplan understandably does its own discharge planning for all SHMO patients at the three hospitals it uses. A full-time nurse from the expanded care unit assesses all hospitalized patients and arranges post-hospital services at home and in nursing homes. She authorizes all required Medicare-type home health and nursing home services for all SHMO patients and continues as case manager as long as they are receiving such services, whether in the hospital, nursing home, or at home. If one of her patients still needs services after Medicare eligibility expires, she can

Chart 1. The Internal Targeting Process: Identifying, Referring, and Qualifying Members for Expanded Care (EC) Benefits

	Elderplan	Kaiser Permanente	SCAN Health Plan	Seniors Plus
SETTING				
Hospital	Assessment by CM hosp coord	Assessment by hospital's discharger	Assessment by CM hosp coord.	Assessment by HMO's hospital discharger
Physician/clinic	All patients are SHMO patients	MDs unlikely to recog. SHMO patient	Some MDs will recog. SHMO patient (sticker on chart)	Some MDs will recog. SHMO patient
Nursing home	NH soc wrk coord with regular CM – all patients	NH soc wrk coord with regular CM – for NHC patients only	CM unit asst dir is CM in NH – all patients	HMO's NH GNP is always CM in NH – all patients
Home care	CM orders & supervises all care in home (2 providers)	CM orders ECB only (two plus providers)	CM orders ECB primarily (multiple providers)	CM orders all care in home (single provider – colocated)
DECISION TO GIVE EC				
Basis of line between Medicare & EC benefit	CM judgment	HMO applies Medicare criteria	Hospital applies Medicare criteria/ CM judgment	HMO's current practice/CM judgment
Eligibility for EC Benefits	Unclear – CM hosp coord gives no EC during Medicare elig	Up to 30 days if ever meets NHC criteria and has need for services	Unclear – CM hosp coord merges EC & Medicare for 30 days	No special deal – part of regular EC benefit – CM jdgmnt

transfer the case to a regular case manager for a comprehensive assessment and care plan (if NHC).

Elderplan uses several area nursing homes in addition to the two owned by its sponsor, the Metropolitan Jewish Geriatric Center (MJGC). The case management unit carries all non-permanent admissions to nursing homes as active cases, generally working with the nursing home social worker.

Elderplan buys skilled home care services from MJGC and personal care services from a large outside agency. The expanded care case workers' responsibilities go beyond other sites in that they personally supervise personal care workers and introduce them to the members when the worker first starts. The referral coordinator from the personal care agency has been so impressed with the Elderplan case managers' involvement with their patients that she said, "I send them my best workers."

Elderplan is largely left on its own in determining the borderline between Medicare and expanded care benefits. It is usually a judgment of the nurse who does discharge planning, but her criteria appear more liberal than Medicare's because she does not authorize expanded care services during the period of Medicare eligibility. That is, if the member needs more services (either in intensity or type of worker) than Medicare would normally approve in the fee-for-service system, these services may be ordered, but the expanded care benefit is not charged. Instead, she tends to cover all needs out of the fully-paid portion of the member's benefits. For members receiving Medicare services unrelated to a hospital discharge, each individual case manager draws the line between expanded care and Medicare. When in doubt, they ask those who make these decisions in their vendor agencies to help them decide.

SCAN Health Plan

SCAN has not gone as far as Elderplan in remaking the acute care system, but it has inserted its staff in key sectors of hospital and nursing home decision making. SCAN contracts for acute hospital and SNF services from St. Mary's Hospital and for medical services from a new IPA medical group of about 30 physicians affiliated with St. Mary's. SCAN members are only a small part of the practices of most of the physicians in the SCAN medical group, so communication about targeting procedures poses some challenges. Some physicians are more eager than others, however, to see the growing numbers of elderly patients that SCAN promises and new members who ask for help choosing a physician are steered to them. Physicians with substantial numbers of SCAN patients generally understand that there are expanded care benefits and who can receive them.

SCAN does not have the same fears as Elderplan about the hospital's track record or motivations concerning long lengths of stay. SCAN pays St. Mary's for both acute hospital and acute and chronic nursing home care on a capitation basis, so the hospital should have every incentive to manage admissions and discharges carefully. Because significant staffing changes occurred both in the hospital and the SCAN case management unit during the study period, the arrangements for targeting hospital discharge patients is not detailed here. What can be said is that all patients discharged to their homes or to nursing homes are managed by the expanded care unit.

Similar to Elderplan, SCAN has an operational definition of boundaries for Medicare and expanded care benefits that appears to be a relaxation of strict Medicare guidelines. The SCAN nurse who coordinates hospital discharge keeps only cases that need

services for 30 days or less. The plan pays for these services out of the Medicare side of the budget. That is, these members do not receive comprehensive assessments and nothing is charged to their expanded care benefit. This nurse refers cases that go longer than 30 days to a regular case manager. After that point the cost of most home care and nursing home services comes from the expanded care benefit, unless in the judgment of the case manager and of associates who can be consulted the conditions meet Medicare criteria.

Kaiser Permanente

The Kaiser Permanente (KP) system for dealing with internal referrals and expanded care eligibility decisions is structured as an add-on to current systems. Case managers become involved if the member is frail and is potentially able to meet expanded care criteria. Otherwise, members are managed by the regular KP systems, receiving the comprehensive set of Medicare benefits available to members of KP's regular Medicare HMO (Medicare Plus I). The case managers provide significant service to personnel dealing with frail members.

Kaiser Permanente did little new planning for restructuring SHMO members' relationships with physicians. Several years ago KP went through a geriatrics planning process as part of the demonstration phase of Medicare Plus I. Kaiser Permanente now serves more than 35,000 Medicare members in the Portland area.

For post-hospital cases, two of Kaiser Permanente's case managers act as hospital coordinators (one for each of the hospitals used). Each day they receive a list of newly hospitalized SHMO patients including admitting diagnoses. They check diagnoses against HSFs and whether the member already receives expanded care. If not receiving expanded care, the hospital coordinator generally takes no further action unless she receives a call from the hospital social workers saying that the member may qualify for expanded care. If no call is made, the member is discharged, and receives a service plan that would be available to a regular Medicare member. The case management unit's only action is to telephone in 2 or 3 months to determine if recovery is complete. If the hospital coordinator does receive the call or the member is already on expanded care, she (and the case manager if the member has one) consults with the social worker about whether services are needed beyond Medicare coverage.

If it is determined that additional services are needed, from 2 to 4 weeks of expanded care benefits can be authorized via telephone. If a member meets NHC criteria in a hospital discharge context at KP, the member remains eligible for 30 days, unless there is a dramatic improvement in the member's condition.

The KP expanded care unit has developed similar working relationships with their primary nursing homes and home health agencies. If the member receives expanded care or appears to qualify, key social workers, nurses, and supervisors in these settings have been trained to recognize this and inform the expanded care unit. Otherwise SHMO members receive regular Medicare benefits from existing KP staff and do not become involved with the expanded care benefit unit.

Kaiser Permanente relies primarily on the current practice of the staff in the regular system to define the limits of Medicare eligibility and to define the home health and nursing home services that the Medicare portion of the benefit covers. In turn, the expanded care unit staff has the final say over expanded care eligibility and coverage. Given KP's strict expanded care eligibility criteria, there have been cases in which, for example, a member in a nursing home no longer meets Medicare's skilled care criteria but also does not meet any of the expanded care criteria. Fortunately, these cases have been very few and, with refinements of the eligibility criteria, probably will be eliminated.

Seniors Plus

Although there are similarities in the issues faced in planning for expanded care referrals out of the Kaiser Permanente and GHI HMOs, the Seniors Plus planners devised somewhat different solutions for managing members in hospital discharge, nursing homes, and home care. The differences seem to stem from the fact that Seniors Plus is a partnership of two organizations whose somewhat overlapping systems must be accommodated, whereas KP's SHMO is an add-on benefit and provides service within a single organization.

The first difference is that the expanded care unit manages all Seniors Plus patients discharged from the hospital to the home and needing either Medicare-type or expanded care benefits. It was decided early in the planning phase that it would be too confusing for members and case managers to have the GHI Continuing Care (home health) Department responsible for members on post-hospital Medicare benefits only and the expanded care unit responsible for expanded care benefit supplementation (as is the case at KP). Thus GHI staff discharge planners notify the expanded care unit of all SHMO member admissions and they jointly plan discharges, with all in-home services (both Medicare and expanded care) ordered by the Seniors Plus case management unit.

A second difference from KP is that GHI hired a nurse-practitioner to more closely manage the care of its nursing home patients, especially in a new subacute unit in the nursing home where the expanded care team is located. The nurse-practitioner was hired in preparation for the increased numbers of aged members resulting from the Seniors and Seniors Plus programs. She attends all case conferences, understands the expanded care benefits, and works very closely with the expanded care unit. Although not a member of the SHMO staff, she becomes the case manager for all Seniors Plus members in nursing homes. Her presence has been a prod to discharge planners and emergency room staff to discharge members to the nursing home earlier or to avoid hospital admission altogether and to nursing home

staff to undertake more intensive rehabilitation efforts to speed early discharge to the home.

A third difference is that the service coordination unit and the Ebenezer Society home care department are located at the same site. This allows easy communication with the service delivery and supervisory staff that serves most SHMO home care patients. Because Seniors Plus case managers handle both Medicare-type and expanded care home care and the GHI nursing home nurse-practitioner handles both types of nursing home care, all Seniors Plus patients receiving care in these settings are known to the case management unit.

Fourth, the site devised a somewhat different approach from KP to coordinating with physicians in a large HMO. A handful of GHI physicians with representatives from each clinic form a geriatric resource team. For Seniors Plus, the team ensures a group of physicians with a fairly high caseload of SHMO patients and a good knowledge of SHMO benefits and procedures.

Finally, there are differences in the way KP and Seniors Plus decide to cover care with the Medicare or expanded care portion of members' benefits. Due to the discretionary nature of the Seniors Plus expanded care eligibility criteria, the issue of whether a member in a nursing home or receiving home care whose Medicare benefits have run out is eligible for expanded care services does not arise in the same way as at Kaiser Permanente: These members are eligible if the case manager believes there is a demonstrated need. Furthermore, because the expanded care unit manages all home care cases and the nursing home nurse-practitioner manages all cases in the nursing home, the site cannot rely on the routine decisions of the non-SHMO system to decide when a member's Medicare eligibility or benefits have been exhausted. Although expanded care staff consult discharge planners, nursing home and home health nurses, and supervisors about borderline cases, they must make the final determination themselves.

Conclusion

This first systematic look at SHMO expanded care targeting systems in operation has been primarily descriptive rather than analytical. The goal has been to raise targeting issues arising in consolidated systems of care for the aged and to describe and compare the choices made by the four SHMO sites. An analysis of the impact of different targeting choices on who is served, the costs of care, and member outcomes are on the agenda for future research. At this point, conclusions are a prelude to the next level of questions and to tentative hypotheses. Conclusions must also be tempered by the fact that expanding enrollment and ongoing reassessment of operations leads to continual change in targeting systems.

These qualifications notwithstanding, several points stand out.

First, the SHMOs have a relatively uniform and effective system of screening and assessing new members. Disabled members have a very good chance of being identified, assessed, and qualified for a unique set of chronic care services. The system also collects a uniform cross-site database on all members.

Second, the SHMOs use different eligibility criteria for expanded care and some serve larger proportions of their memberships. Kaiser Permanente and Elderplan limit eligibility narrowly to those who meet nursing home admission requirements; SCAN targets broadly to the severely and moderately disabled with unmet needs; and Seniors Plus leaves eligibility to the case manager's clinical judgment of need for services. The impact of criteria is seen in the much smaller proportion of members served with expanded care at the narrow rules sites. Issues that the differences pose for future research and policy include cost impacts for case management and services, effects on prevention and enhancing well-being, and what type of criteria to use (e.g., scales, trigger items, or judgment; weighting for health, social, and mental health needs; functional versus deficit measures). Clearly, the important questions are how to define the insurable event and who should define it.

Third, targeting systems for able-bodied members who become impaired have been developed to fit each site's service system. Identification and referral linkages with hospital discharges, nursing homes, and home care services are in place at all sites. Busy physicians are sometimes unaware, however, they are serving SHMO clients with special benefits. An issue for future study is to determine if many members do not receive expanded care because physicians fail to refer them and they are not themselves aware of their benefits. In any case, the consolidated SHMO system is clearly superior to stand-alone acute care systems in identifying and referring newly disabled individuals for chronic care services.

Fourth, boundaries between Medicare and expanded care benefits must be defined and managed. Because Medicare and expanded care benefits can cover the same services but have different limitations (benefit caps, co-pays, eligibility conditions, benefit periods), SHMOs must consistently distinguish where one benefit ends and the other begins. Without the Medicare intermediary to review claims, fairness issues arise. These issues also arise for Medicare HMOs, which put members on private-pay status after the HMO ceases coverage of home health and nursing home care.

Finally, several areas that have been only touched on will be addressed in future development efforts and research on the SHMO. The first area is the organization and management of case management services. Enough information was collected in the course of the current study to identify differences in the intensity of case management services. There appear to be two models: the hands-on approach of the service manager and even the service giver; and the benefits manager approach, in which case managers are assessors, authorizers, and coordinators. Again there are implications for cost and quality of service received. The Consortium is able to continue

this current research under a grant from the Robert Wood Johnson Foundation.

A second area for cross-site research is to compare who receives care and how much they receive. The goal is to improve management practices, efficiency, and effectiveness through case management models that produce benefit levels commensurate with need. Assessment and utilization data necessary to this research are already being collected under the grant.

Another pressing research and development need is to improve understanding of the informal caregiving process and to find ways for enhancing informal caregiving and improving the joint decision-making process among case managers, frail members, and informal supporters. The consolidated SHMO system clearly offers a unique opportunity for removing the barriers to knowledge about delivering cost-effective comprehensive health care to the aged.

References

Abrahams, R., Greenberg, J., Gruenberg, L., & Lamb, S. (in press). Functional assessment and inter-rater reliability in multi-site long-term care demonstration programs: An example from the Consortium of Social HMOs. *Evaluation Review.*

Capitman, J. A. (1986). Community-based long-term care models, target groups, and impacts on service use. *The Gerontologist, 26,* 389–397.

Capitman, J. A., Haskins, B., & Bernstein, J. (1986). Case management approaches in coordinated community-oriented long-term care demonstrations. *The Gerontologist, 26,* 398–404.

Capitman, J. A., Haskins, B., DeGraff, B. et al. (1984). *Evaluation of coordinated community-based long term care demonstrations: Final report.* HCFA Publication 500-90-0073. Berkeley, CA: Berkeley Planning Associates.

Challis, D., & Davies, B. (1981). The Thanet community care projects: Some interim results. Discussion Paper 194/3. Canterbury, England: University of Kent at Canterbury, Personal Social Services Research Unit.

Greenberg, J., Leutz, W., & Abrahams, R. (1985). The national Social HMO demonstration. *Journal of Ambulatory Care Management, 8,* 32–61.

Greenberg, J., Leutz, W., Greenlick, M., Malone, J., Ervin, S., & Kodner, D. (1987). The Social HMO demonstration: Initial operating experience. Social HMO Consortium. Mimeograph. Waltham, MA: Brandeis University.

Kane, R., Leutz, W., Prottas, J., & Abrahams, R. (in press). *Long-term care plans in the SHMO: Patterns and influences.*

Leutz, W., Greenberg, J., Abrahams, R., Prottas, J., Diamond, L., & Gruenberg, L. (1985). *Changing healthcare for an aging society.* Lexington, MA: Lexington Books.

Leutz, W., MacAdam, M., Abrahams, R., Prottas, J., & Greenberg, J. (1986). *Social HMO national demonstration project: Final report.* Health Policy Center. Mimeograph. Waltham, MA: Brandeis University.

MacAdam, M., Greenberg, J., & Greenlick, M. (in press). Targeting long-term assessments for the frail elderly: An example from the SHMO demonstration. Social HMO Consortium. Mimeograph. Waltham, MA: Brandeis University.

United States General Accounting Office. (1983). *The elderly should benefit from expanded home care but increasing these services will not insure cost reduction.* Publication IPE-83-1. Washington, DC: U.S. Government Printing Office.

Weissert, W. (1985). The cost-effectiveness trap. *Generations, 9,* 47–50.

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Public and private costs were examined for nursing home applicants participating in the Virginia Nursing Home Pre-Admission Screening Program. Applicants diverted to community care were less dependent and had greater informal supports than those admitted. Public and private payments for community care were lower than for nursing home care. Public payments for community care were consistently lower than for institutional care even when controlling for differences in nursing resource requirements.

Key Words: Medicaid home and community-based care waivers, Personal care, Informal support

Public and Private Costs of Long-Term Care for Nursing Home Pre-Admission Screening Program Participants

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The importance of targeting community-based services to individuals with short-term risk of nursing home entry has been stressed by critical reviews (Birnbaum et al., 1984; Capitman, 1986; Hughes, 1985; Kemper et al., 1985; Weissert, 1985) of the cost-effectiveness of alternatives to institutional long-term care. Also observed has been the inconclusive nature of findings regarding the impacts of new community services on patient and informal caregiver outcomes, as well as the relative public and private costs of alternative approaches to long-term care delivery.

Medicaid and Medicare expenditures have been the primary focus of the demonstration projects. Extensive use of funds from other sources for community services, however, has been shown in several studies (Kemper et al., 1985; Sklar & Weiss, 1983). Alternative long-term care programs should not be evaluated solely on the basis of constraining both public and private expenditures (Capitman, 1986; Weissert, 1985). Still unresolved, however, is the overall cost-effectiveness of community-based care when both public and private costs are considered.

Little is known about the combined roles of federal, state, and local programs and privately purchased services in long-term care. Pollak's (1973) conceptual framework suggested that community care costs are below nursing home costs for the less disabled but rise with disability to surpass nursing home care costs. The 1977 General Accounting Office (GAO) Cleveland survey provided one of the most detailed examinations of these issues. Data on service use, household expenses, and informal caregiving were collected for over 1,600 aged community residents (Comptroller General of the United States, 1977a). The GAO also polled 27 service provider agencies nationally to estimate average costs for community services and they priced informal care at the rate for comparable services delivered by an agency. Informally provided care expenditures exceeded public service costs for all levels of impairment and combined public and private costs of care in the community were found to equal or surpass estimated Medicaid nursing home payments for those who were greatly or severely impaired (Comptroller General of the United States, 1977b). Not considered in the GAO estimates were the costs of housing, household maintenance, or groceries. For example, total costs for the unimpaired group were reported at $63 per month in 1977.

Contrary to the GAO findings and Pollak's conceptual framework, not found in reviews of community care demonstrations (Capitman, 1986; Kemper et al., 1985) was that public and private payments increase with disability. In institutional long-term care, case mix measures of disability have been found to have little relationship to public payments even though based on the staff time devoted to patient care (Arling et al., 1987a; Arling et al., 1987b; Birnbaum et al., 1981; Bishop, 1980; Fries & Cooney, 1985).

Despite recent cutbacks in some federal programs, there has been continued development of community long-term care services, financed through existing federal, state or local sources and private initiatives. Medicaid 2176 waivers, in particular, have fostered services for low income individuals at risk for nursing home care. Yet little descriptive information is available on client characteristics and patterns of service use within these new delivery systems (Steinhardt, Capitman, & Yeatts, 1985). Similarly, lit-

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tle is known about the roles of private insurance and personal expenditures as they relate to publicly financed community or institutional long-term care.

To gain a better understanding of these issues in Virginia, the 1984 Virginia General Assembly called on the Long Term Care Council to conduct a study of the public and private costs of community and institutional care. The Council coordinates state administered programs for impaired older people.

In response to this legislative request, the Council conducted a study of participants in the Virginia Nursing Home Pre-Admission Screening Program. Individuals who were judged eligible for Medicaid reimbursed long-term care services (community or institutional) were followed for 6 months after screening. Interviews, agency reports, and secondary data were combined to examine patterns of public and private service use and costs. Because family members and friends play a substantial role in long-term care, extensive data were collected on informal caregiving.

Long-Term Care in Virginia

The primary public providers of long-term care in Virginia are the agencies that form the Long Term Care Council, the Departments of Medical Assistance Services (the Medicaid agency), Health, Social Services, Mental Health and Mental Retardation, Aging, Rehabilitation Services, and Visually Handicapped. Each of these agencies has a network of providers at the regional or local level. Some local agencies provide services directly, whereas others purchase services from private agencies. Local Long Term Care Coordinating Committees, with representation from these provider networks, are responsible for interagency relationships in each community. They engage in planning and needs assessment, coordinate client referrals, and attempt to stimulate private initiatives in community long-term care.

The Virginia Nursing Home Pre-Admission Screening Program (PAS), administered by the Department of Medical Assistance Services (DMAS), has received considerable national attention and has been reported on elsewhere (Carnes & Cook, 1977; Harkins & Bowling, 1982; Lloyd et al., 1985). Screenings are carried out with a standardized multidimensional assessment instrument developed by Falcone (1978), and assessment records are maintained in the computerized files of DMAS's Long Term Care Information System (LTCIS). Screenings are performed for all nursing home applicants who are Medicaid eligible or would be within 6 months of admission. Screenings at hospital discharge are performed in the hospital by nurses and social workers. Applicants from the community are screened by nurses and social workers from local Departments of Health (DOH) and Social Services (DSS). It is estimated that at least 85% of persons admitted to nursing homes participate in the program. Approximately 9,000 individuals are screened annually.

An individual who is eligible for intermediate or skilled nursing facility level care may be referred for nursing home services or for Medicaid 2176 waiver-supported personal care services. Those eligible for Medicaid only if placed in a nursing home may receive Medicaid reimbursed personal care by making a copayment. In addition to personal care, individuals recommended for community placement may receive home health services funded under Medicaid and Medicare and aide services provided by local health departments. The referral for personal care, however, is contingent on the screening team's determination that community care services required by the individuals would be no more costly to the Medicaid program than nursing home care.

Nursing home care is provided by 165 Medicaid certified facilities. Virginia is near the national median in institutional long-term care bed supply. Although a recent census of the nursing home population indicated some maldistribution of beds, there was no evidence for an overall bed shortage in Virginia. Of Virginia's certified beds, 90% are at the intermediate care facility (ICF) level and 67% of nursing home residents receive Medicaid.

In addition to Medicaid, community long-term care services are available through a variety of funding sources. Local DSS offices are responsible for determining eligibility for Medicaid and other benefit programs. They administer the federal Social Services Block Grant (SSBG), which finances, with state and local funds, a range of services including homemaker, chore, companion, adult day care, and congregate meals. The DSS also provides residential placement in homes for adults and adult foster care.

The Virginia Department for the Aging (DOA) has designated 25 Area Agencies on Aging that are funded through the Federal Older Americans Act, state, and local monies. DOA agencies provide congregate and home-delivered meals, homemaker, companion, adult day care, home health, transportation, and case management and advocacy services. The Department of Mental Health and Mental Retardation (DMHMR) through 40 Community Services Boards (CSB) uses federal, state, and local funding to provide a variety of mental health and substance abuse services to elders and others, and case management of community stays for individuals discharged from its six psychogeriatric hospitals. The Department of Rehabilitative Services (DRS) and the Department for the Visually Handicapped (DVH) combine various funding streams to offer diagnostic and rehabilitative services.

Complementing the local health departments in the delivery of home health and personal care services are private licensed home health agencies. These agencies also receive Medicare, private insurance, and out-of-pocket reimbursements. In many communities, unregulated proprietary and charitable agencies also provide paraprofessional home care services.

Study Overview

To examine the total costs of institutional and community-based care, comparable subpopulations

of long-term care users needed to be examined. Therefore the study was focused on Nursing Home Pre-Admission Screening (PAS) participants judged eligible for ICF or the skilled nursing facility (SNF) level of care. The study was further limited to patterns of utilization and costs for the 6 month period immediately following screening. Although these restrictions maximized the comparability of institutional and community care samples, they limited the generalizability of findings. In particular, not considered in this approach were community care costs for individuals who had not sought nursing home care or who had failed to meet the eligibility criteria for Medicaid long-term care services. At the same time, the level of Medicare and out-of-pocket expenditures may have been overestimated in the 6 month study period because these sources were likely to have been most heavily tapped immediately after hospital discharge or upon nursing home admission.

The primary goal of the study was to describe patterns of long-term care utilization and costs rather than to explore the overall cost impacts of the PAS and community care programs on institutional use or public costs. Utilization data were also collected on hospitalizations and physician visits. But Medicare and private payments for these services were excluded from the analysis. All Medicaid costs, including acute care, were examined because of concern that the Medicaid 2176 home and community-based waiver programs may have affected the use of other Medicaid services (Steinhardt, Capitman & Yeatts, 1985).

An effort was made to capture all private expenditures that reasonably could be attributed to long-term care. Both care-related and household maintenance costs were considered for community residents. All out-of-pocket expenditures for household maintenance were recorded for individuals living alone. For those living with others (including a spouse), household expenditures attributable to the long-term care user were separated from general household maintenance and expenditures for other household members.

Detailed data were also collected on the nature and extent of family and other informal caregiving, because it was expected, based on the other studies (Comptroller General Office of the United States, 1977a; Shanas, 1979; Soldo & Manton, 1985), that the majority of services received by community-residing long-term care users would be provided by informal caregivers. Although informal care costs could have been priced at the observed agency rates for similar services, as in the GAO study, this approach was not taken in the primary analyses for several reasons. First, informal caregivers may be either more or less efficient in providing specific services than formal caregivers. Pricing informal care at agency rates for comparable services requires a better understanding than is currently available of how much formal care is replaced by a given level of informal care. Second, it is difficult to assign a price to informal caregiver opportunity costs. Earlier researchers have indicated most informal caregivers are retired elders or unemployed (Mvllvuoma & Soldo, 1980; Soldo & Manton, 1985). Most employed caregivers add this responsibility to already crowded lives, rather than quitting work or reducing work time to care for a dependent person (Brody, 1985; Brody et al., 1983). The difficulty in estimating the opportunity costs of informal caregivers' volunteered labor is reflected in these studies.

Method

Long-term care use and costs were examined for individuals from 35 communities who had applied for nursing home care. The communities were selected to represent the urban-rural, geographic, and health care delivery system variations of the state. Based on an analysis of LTCIS data, study communities were representative of the state in the proportion of applicants diverted to community care and the demographic, functional, and diagnostic characteristics of those referred to the Medicaid long-term care program. Individuals were interviewed twice during the study: approximately 1½ months and 6 months after screening. Information on service use was gathered through interviews, agency records and reports, the Medicaid Management Information System (MMIS), and other automated reimbursement systems.

Multidimensional Assessment

Demographic, functional, and diagnostic information was collected by screening teams using the LTCIS assessment form (Falcone, 1978). A supplemental form completed by screening teams was used to assess the availability of informal supports and dependence in instrumental activities of daily living (IADL) for those expected to return to the community. Assessment records obtained from the LTCIS were used for the baseline description of study cohorts. A 12-point scale was constructed for impairment in the activities of daily living (ADL). The scale was the sum of 6 ADL items, reflecting independence with or without use of an adaptive device (0), need for human assistance (1), or total dependence (2). The ADL scale was found to be internally consistent (Cronbach's alpha = .89). A 14-point scale was constructed for dependence in IADL. The scale was the sum of 7 IADL items reflecting independence (0), need for partial assistance or supervision (1), or total dependence (2). The IADL scale was found to be internally consistent (Cronbach's alpha = .85).

Also applied to the LTCIS data was the Virginia nursing home case mix index (Arling et al., 1987a). The index was developed from a separate study involving time measurement of direct nursing care for a representative sample of 550 Medicaid nursing home residents. With the index, individuals were grouped by health and functional status into mutually exclusive classes that were homogeneous with respect to nursing resource requirements.

The community care sample interview involved follow-up data on functioning and information on

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formal and informal care receipt. Data on private costs (care-related and household maintenance) for the community care sample were collected during both rounds of interviewing. Interviews were conducted with relatives or other informants (e.g., local agency staff or neighbors) for 139 nursing home users. They were interviewed to corroborate nursing home reports of length of stay and private costs for institutional care, but data on formal and informal care receipt either before or after the nursing home stay were not collected from this sample.

Sample

Two samples were obtained from PAS participants who qualified for ICF or SNF level of care screened in study communities between November, 1984 and February, 1985. Screening teams referred to the research project a total of 197 individuals who were likely to be community care placements. Of these 197 individuals, which represented 76% of the cases referred to personal care from study communities during the intake period, 11 died, 15 entered nursing homes within 2 weeks of the screening, and 3 refused to participate. Thus, the final community care sample was 168.

The nursing home sample was generated by obtaining a subsample of 145 individuals who were expected by screening teams to enter nursing homes immediately after screening. Added to this subsample were 15 individuals originally included in the community care sample who entered nursing homes prior to being interviewed. This nursing home sample of 160 individuals represented one-third of the nursing home admissions screened in study communities during the intake period. Comparison of the nursing home care users sample with all PAS participants admitted to nursing homes during the study period (using LTCIS data) revealed no significant differences.

As shown in Table 1, although the community care and nursing home care users appeared similar with respect to age, sex, race, Medicaid eligibility, and most measures of functioning, some differences were observed. Those referred for community care were less likely to be living alone at the time of the assessment, less likely to be dependent in walking, and had lower ADL impairment scores than those referred originally for institutional care. The community care users also showed a significantly lower proportion in the SNF level case mix group and a higher proportion in the least frail case mix groups. Those referred originally for community care also tended to be receiving informal support with a greater number of tasks. Although not reported in the table, analyses revealed no differences between groups in diagnostic patterns or the number of diagnoses.

It is not possible to determine what proportion of the community care users would have entered nursing homes in the absence of PAS and personal care services. Available multivariate models of the predictors of nursing home admissions (Branch & Jette, 1982; McCoy & Edwards, 1981; Vincente et al., 1979) or of the differences between nursing home and community residents (Greenberg & Ginn, 1979; Kraus et al., 1976; Weissert & Scanlon, 1983) could not be applied to these data to estimate diversion impacts because of differences in measurement of relevant predictor variables. Nonetheless, these data were consistent with the findings of determinants of institutionalization studies in suggesting that nursing home applicants diverted to the community tended to be at the ICF level of care, somewhat less disabled, and with far stronger informal supports than those referred for institutional care.

Table 1. Study Participant Characteristics by PAS Referral to Community or Nursing Home

	Nursing home (n = 160) % or Mn	Community care (n = 168) % or Mn
Demographics		
Age (Mn years)	79	79
Sex (% female)	72%	76%
Race (% white)	67%	61%
Living arrangement (% alone)*	63%	32%
Informal support (Mn number of informal services)*	1.6	3.2
Health coverage (% Medicaid enrolled)	46%	51%
Functioning		
ADL score (Mn tasks dependent)*	7.3	6.2
ADL (% dependent in 4 or more)	81%	79%
Mobility (% dependent)*	97%	89%
Sight (% impaired)	84%	79%
Hearing (% impaired)	80%	78%
Speech (% impaired)	79%	79%
Case mix classification		
Skilled care I and II*	20%	6%
Intermediate care I	16%	9%
Intermediate care II	11%	17%
Intermediate care III	28%	33%
Intermediate care IV*	25%	35%

*Nursing home and community care groups differ ($p < .05$) by Chi-square or t-tests.

Tracking Public and Private Service Costs

MMIS data were obtained for all 266 study participants who had valid Medicaid beneficiary identifiers. In addition, all local DOH and DSS offices, AAAs and CSBs were provided lists of all community care participants in their jurisdictions. Based on reviews of manual and automated data systems, information on use and costs for all direct and contracted services and public payments such as SSI were obtained on a monthly basis. Central office staffs from DRS and DVH used automated data systems to track all service use for study participants. Agencies were both able and willing to provide the needed information on a timely basis because of the Long Term Care Council sponsorship of the research project. DSS, DOH, and AAA, in most communities, also reported on services provided by other public or private agencies. In some cases, agency reports regarding the source,

intensity, and duration of service provision were found to conflict with other provider or client reports. These conflicts were resolved individually by telephone or mail contacts with the provider agencies or other informants. The use of multiple sources of service utilization data, combined with resolution of conflicting reports on a case-specific basis was viewed as the best available method to assure the reliability and completeness of the cost data.

Care coordination workers in local DSS, DOH, and AAA offices also kept detailed records of time devoted to case management or advocacy services for community care participants. These service hours were multiplied by worker-specific wage rates, adjusted to reflect agency-specific fringe benefit and overhead costs.

For both the nursing home care and community care participants all private agencies including nursing homes, home health agencies, and paraprofessional home care providers also reported cost and service use data. Private agency and nursing home providers reported on a monthly basis on all public and private payments for care. Both nursing homes and informal caregivers were inconsistent in their reporting on resident receipt of the minimal SSI payment made to categorically eligible Medicaid recipients, so these were excluded from public costs for both community and institutional care study participants. This may result in some underestimation of total public costs in both settings. Based on provider reports, only about 30% of both the community care and nursing home care users received SSI, so it does not appear that this exclusion biases the cost comparison.

All other data on use and costs for household maintenance and care were used in constructing service utilization histories for study participants. Attrition due to mortality over the 6 month study period was similar across the community and nursing home care study groups (8% and 9%, respectively), but not all participants remained in one setting for care throughout the study period. In addition to attrition due to mortality, 21% of the community care users entered a nursing home during the study period. As a result, an average of 4.5 months of community care utilization and cost data were available. Similarly, 32% of the nursing home care users were discharged to the community during the study period and an average of 4.1 months of nursing home care utilization and cost data were available. The nursing home and community care groups did not differ significantly in the proportion of the study period that they remained in their respective settings. For the purpose of the analysis, the percentage using each payment source was based on receipt of one or more services from that source during the project period. Further, the total public and private costs incurred by a study member while in the community or a nursing home were divided by the number of days that the individual was alive in that setting. Costs were reported on an average monthly basis. Both limited data on community care use by nursing home care users and the relatively short study period precluded an assessment of the overall diversion or cost avoidance impacts of the PAS and community care programs on nursing home use and costs.

Results

Public and Private Cost of Care

As shown in Table 2, 87% of the community care users had one or more services paid from a public source and 100% had at least one service paid from a private source. In all, 82% of nursing home users received public payments, whereas 74% had private payments. Also revealed was that all community care recipients (or their spouses) contributed to payment for care. By contrast, less than two-thirds of institutional residents contributed to payment. Further, families were more likely to contribute to community care than to institutional care (24% vs. 14%). Private insurance was only minimally involved in community care (1%), although 12% reported some private insurance for institutional care.

Table 2. Use and Average Monthly Costs for Formal Long-Term Care by Source of Payment and Setting for Care.

	Setting for care					
	Nursing home (n = 160)			Community care (n = 168)		
	% Using	Mean	(s.d.)	% Using	Mean	(s.d.)
Source of payment						
Private:						
Older person spouse	64	$ 373	(588)	100	$412	(191)
Family	14	83	(203)	24	81	(182)
Insurance/charities	12	65	(216)	1	12	(33)
All private	74	521	(723)	100	505	(298)
Public:						
Medicare	25	210	(515)	26	78	(196)
Medicaid	62	614	(802)	48	243	(343)
SSBG/DSS	—	—	—	80	110	(160)
Title III/AAA	—	—	—	14	15	(67)
All other	—	—	—	15	13	(52)
All public	82	824	(942)	87	463	(498)
Total		$1,345	(489)		$968	(531)

A different picture emerged in regard to public payments. Of institutional residents, 62% had Medicaid payments, which contrasted with 48% of community care users. Medicare was involved in payment for about equal proportions (one-fourth) of community and institutional users. Other public payment sources (e.g., SSBG and Title III) were represented in payment for community but not institutional care.

Although both public and private costs were lower for community care than nursing home care users, cost distributions were notably different. On average, public and private sources accounted for about equal proportions of community care costs ($463 vs. $505). In the nursing home, however, public payments were substantially higher than private payments ($824 vs. $521). Medicaid was the primary public payor for nursing home care ($614), with a relatively smaller Medicare contribution ($210). By contrast, Medicaid accounted for slightly more than half the public payments for community care ($243), with other state-administered programs and Medicare covering the remainder. For Medicaid recipients only, averaged monthly Medicaid community care payments were $506, but for Medicaid recipients in nursing homes, the monthly payment averaged $983. Medicare involvement in both institutional and community care was overstated in this analysis because of the 6 month study period. Because about half the study participants were screened in hospitals, they were potentially eligible for Medicare coverage of post-acute services (e.g., SNF or skilled home care).

After Medicaid, the DSS programs had the largest role in community care. Although 80% of community residents had services through SSBG, monthly payments averaged only $110. Most of the community care users (70%) received care coordination or eligibility determination from DSS agencies. Care coordination services were also provided by local AAA and CSB agencies but for smaller proportions of the community care clients. It should be noted that although other state-administered programs besides Medicaid and SSBG played a relatively smaller role in paying for services to the community care participants, they were major providers of care for some study participants. For example, AAA service costs for users averaged $122 per month, but only 14% of the community care participants used these services.

The analysis of Medicaid claims for enrollees suggested that although total Medicaid reimbursements were lower for community care than nursing home users, Medicaid reimbursements for hospital care, outpatient clinic, Medicare copayments, and transportation costs were higher for community residents. Excluding payments for long-term care services, monthly Medicaid expenditures for community care clients averaged $277, compared to $139 for nursing home residents. Community care clients may have experienced more frequent or severe acute exacerbations of their chronic conditions. Alternatively, nursing homes may have been better able to handle medical needs in the facilities without resorting to hospitalization. The additional medical service use by community care clients, however, did not offset higher long-term care costs associated with institutional stays.

As noted earlier, community care users were less disabled than nursing home users. But, as shown in Table 3, public payments were unrelated to case mix group in both the community and nursing homes. The ratios of average monthly public costs for nursing care versus community care ranged from 1.85:1 to 1.31:1. It is also noteworthy that public payments did not rise with case mix severity in either setting. Public costs for the least severe case mix category (Intermediate Care IV) were nearly as high as for the most severe case mix category (Skilled Care I and II) in both community and institutional settings. Further, community care was less costly for the Medicaid program and for private payers after averaged monthly payments were adjusted for differences in recipient functional levels using the case mix index.

In a separate multivariate regression analysis, demographic, program eligibility, functioning, and informal support variables accounted for little of the variance in average monthly public payments for community care (R^2 = .16); and Medicaid enrollment, recommendations for nursing home or community care, and functioning in IADL were the only significant predictors. Community care public payments were higher for those Medicaid enrolled, recommended for community placement, and having more IADL problems at the time of PAS.

Informal care was found to be the major factor in the lower public costs for community, as compared to institutional, care. Informal caregiving in the home was provided to 94% of the community care participants and 68% of this group had at least one informal caregiver living in the same household. Informal caregivers were asked to report on the time they devoted exclusively to providing ADL and IADL assistance to the participant. Informal caregivers provided assistance with an average of 8.3 out of 15 ADL and IADL activities and provided a mean of 31 hours of care each week. This was compared with formal, paid caregivers (including those paid by clients or their families) who averaged 5.3 ADL and IADL activities and 16 hours of care each week. For the reasons

Table 3. Average Monthly Public Payments by Case Mix Classification and Setting for Care

	Setting for care			
	Nursing home (n = 160)		Community care (n = 168)	
	Mean (std)		Mean (std)	
Case mix classification				
Skilled care I and II	$848	(292)	$490	(287)
Intermediate care I	715	(218)	396	(205)
Intermediate care II	646	(384)	494	(382)
Intermediate care III	866	(372)	416	(422)
Intermediate care IV	844	(207)	456	(387)

*Nursing home groups differ significantly ($p < .05$) from community care group for all case mix categories, but case mix categories do not differ from each other.

mentioned earlier, no attempt was made to estimate the costs to informal caregivers and their families of providing this volunteer labor. But following the conceptual approach of the GAO study, it is possible to give some sense of what the replacement costs for these informally provided services might be. Community care recipients paid an average of $3 per hour out-of-pocket for hired caregivers. If informal caregivers had been reimbursed at this rate, their services would have cost about $466 per month. In other words, community care costs might have equalled or surpassed nursing home costs without the voluntary contribution of labor by family members and others.

Discussion

Suggested by results is that community-based long-term care can be offered at lower monthly public and private cost than nursing home care, at least in the context of a PAS program and Medicaid 2176 waiver-supported personal care services. This conclusion must be qualified in four ways. First, it could not be determined from the study what proportion of nursing home applicants diverted to community care would have entered nursing homes without PAS, personal care, and other community services. Although only nursing home applicants whom PAS teams judged as eligible for Medicaid reimbursed nursing home care were included in the sample, it was observed that community care users were more concentrated in the less resource intensive case mix classes: Some individuals may have sought nursing home admission to be considered for personal care services. The study design did not permit an assessment of the targeting efficiency of the personal care program or other community-based services.

Second, results indicated that public costs were unrelated to disability in both the community and nursing home settings. This was expected for nursing homes because Medicaid reimbursement in Virginia uses a flat-rate, facility per diem which is set prospectively each year based on the facility's reported costs for the prior year. That community care costs were not well explained by client characteristics at screening is contrary to the expectations derived from Pollak's (1973) conceptual framework or the GAO findings. Community care payments seemed determined primarily by administrative factors such as Medicaid enrollment at screening and PAS team recommendations. Confirming the findings of community care demonstration projects (Capitman, 1986; Kemper et al., 1985), it was suggested by these results that community care services were not allocated based on disability or the availability of informal supports.

The relatively short time frame of this study did not permit an adequate assessment of whether or not those community care participants who received relatively low levels of care had less favorable outcomes than others. But an exploratory comparison of those receiving low levels of public services (total monthly public program costs of $300 or less) with other community care participants was performed using analyses of variance. These analyses showed that the lower benefit group clients were less likely to use Medicaid community long-term care services but were no more likely to receive compensatory levels of local DSS or AAA administered care. It was also noted that those with low public benefits showed, in comparison to other community care clients, significantly higher rates of nursing home admission and mortality and less informal caregiver satisfaction with the available care arrangements. Suggested by the findings was that participants with low levels of benefits had inadequate access to care and may have experienced less favorable outcomes as a result. Based on these and other results, the Long Term Care Council has initiated a project to increase the equity of public service allocation and provision through integrating information on long-term care users across funding streams and clarifying authority and responsibility for care coordination.

A third qualification arises from the analysis of informal caregiving. Community care costs might have equalled or surpassed institutional long-term care costs had family members and friends not volunteered their labor. This confirmed and extended the conclusions of, for example, Frankfather et al. (1981), who found that informal caregivers are crucial in keeping long-term care patients in the community. They, among such others as Brody (1985), suggested the desirability of policies and service programs aimed at reducing the burden on informal caregivers and extending the period during which they can continue providing care.

Finally, underscored by a related study finding was the importance of coordinating long-term care delivery subsequent to pre-admission screening to assure timely implementation of recommended care plans and modifications in care plans as client needs change. It was noted that nearly one-third of the nursing home care participants spent some time in the community prior or subsequent to facility admission and that about one-quarter of those initially placed in the community entered nursing homes during the 6 month study period. Different findings regarding the public cost impacts of community service might have resulted if clients had been tracked for longer periods. Further, as Weissert (1985) has noted, the cost effectiveness of community care programs can be heavily influenced by length of stay in either community or institutional settings. If those diverted to the community have relatively short stays prior to nursing home admission, any cost savings associated with community care may be offset by administrative costs of PAS, care planning, and implementation. Similarly, if nursing home stays are relatively short for those not diverted, the potential for community care cost savings is reduced.

Results pointed to potentially cost-effective approaches to community-based long-term care. Nursing home pre-admission screening can serve to target resources to those who otherwise might enter long-term care institutions. With the screening process, those most appropriately served in a non-institutional setting can be identified. Although health

and functioning are important criteria in the placement decision, the critical variable is the viability of informal support. It is the opportunity to combine public and private resources that can make community-based care cost-effective, at least for the period of time that an individual remains in the community. Special efforts are required, however, to facilitate interagency coordination, overcome eligibility or other administrative barriers to timely and coordinated care, and ensure that services provided in the community are responsive to the changing needs of clients and their informal caregivers.

References

Arling, G., Nordquist, R., Brandt, B., & Capitman, J. (1987a). Nursing home case mix: Patient classification by nursing resource use. *Medical Care, 25*, 9–19.

Arling, G., Nordquist, R., & Capitman, J. (1987b). Nursing home cost and ownership type: Evidence of interaction effects. *Health Services Research, 23*, 179–189.

Birnbaum, H., Bishop, C., Lee, A., & Jensen, G. (1981). Why do nursing costs vary? The determinants of nursing costs. *Medical Care, 18*, 1095–1108.

Birnbaum, H., Gaumer, G., Pratter, F., & Burke, R. (1984). *Nursing home without walls: A final report*. Cambridge, MA: Abt Associates, Inc.

Bishop, C. (1980). Nursing home cost studies and reimbursement issues. *Health Care Financing Review, 1*, 47–59.

Branch, L., & Jette, A. (1982). A prospective study of long term care institutionalization among the aged. *American Journal of Public Health, 72*, 1373–1379.

Brody, E. (1985). Parent care as a normative family stress. *The Gerontologist, 25*, 19–29.

Brody, E., Johnson, P., Falcomer, M., & Lany, A. (1983). Women's changing roles and help to the elderly: Attitudes of three generations of women. *Journal of Gerontology, 38*, 597–607.

Capitman, J. (1986). Community based long term care models, target groups, and impacts on service use. *The Gerontologist, 26*, 389–391.

Carnes, C., & Cook, A. (1977). Nursing home pre-admission screening in Virginia. *Journal for Medicaid Management, 1*, 6–18.

Comptroller General of the United States (1977a). *The well-being of older people in Cleveland, Ohio*. HRD-77-70. Washington, DC: United States Government Printing Office.

Comptroller General of the United States (1977b). *Home health — the need for a national policy to better provide for the elderly*. HRD78-79. Washington, DC: United States Government Printing Office.

Falcone, A. (1978). *A long term care information system assessment process*. Lansing, MI: Michigan Office of Services to the Aging.

Frankfather, D., Smith, M., & Caro, F. (1981). *Family care of the elderly*. Lexington, MA: Lexington Books.

Fries, B., & Cooney, L. (1985). Resource utilization groups: A patient classification system. *Medical Care, 23*, 110–123.

Greenberg, J., & Ginn, A. (1979). A multivariate analysis of predictors of long term care placement. *Home Health Care Services Quarterly, 1*, 75–99.

Harkins, E., & Bowling, C. (1982). *Final report: The study of the Virginia nursing home pre-admission screening program*. Richmond, VA: Virginia Center on Aging.

Hughes, S. (1985). Apples and oranges: A review of evaluations of community based long term care. *Health Services Research, 20*, 461–488.

Kemper, P., Applebaum, R., Carcagno, G., Christianson, J., & Granneman, T. (1985). *The national long term care channeling demonstration: Effects for an early sample at 6-month follow-up*. Princeton, NJ: Mathematica Policy Research, Inc.

Kraus, A., Spasoff, R., & Beattie, E. (1976). Elderly applicants to long term care institutions I: Their characteristics, health problems, and state of mind. *Journal of the American Geriatrics Society, 24*, 117–139.

Lloyd, E., Bowling, C., & Koslowski, B. (1985). The Virginia Long Term Care Information System. *Pride Institute Journal of Long Term Health Care, 4*, 14–20.

McCoy, J., & Edwards, B. (1981). Contextual and socio-demographic antecedents of institutionalization among the aged. *Medical Care, 19*, 907–921.

Myllyvuoma, L., & Soldo, B. (1980, November). *Family caregivers of the elderly — who are they?* Paper presented at the 33rd Annual Meeting of the Gerontological Society, San Diego, CA.

Pollak, W. (1973). *Costs of alternative care settings for the elderly*. Working Paper 963-11. Washington, DC: The Urban Institute.

Shanas, E. (1979). The family as a social support system in old age. *The Gerontologist, 19*, 169–174.

Sklar, B., & Weiss, L. (1983). *Project OPEN: Final Report*. San Francisco, CA: Mount Zion Hospital and Medical Center.

Soldo, B., & Manton, K. (1985). Health status and service needs of the oldest old: Current patterns and future needs. *Health and Society, 63*, 286–319.

Steinhardt, B., Capitman, J., & Yeatts, D. (1985). *Evaluation of the Connecticut Medicaid 2175 Waiver Model Project*. Rockville, MD: La Jolla Management Consulting, Inc.

Vincente, L., Wiley, J., & Carrington, R. (1979). The risk of institutionalization before death. *The Gerontologist, 19*, 361–370.

Weissert, W. (1985). Seven reasons why it is so difficult to make community based long term care cost-effective. *Health Services Research, 20*, 423–433.

Weissert, W., & Scanlon, W. (1983). *Determinants of institutionalization of the elderly*. Working Paper No. 1466-21 (revised). Washington, DC: Urban Institute.

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Based on the national evaluation of Medicaid 1115 and Medicare 222 community-based care demonstrations, variations in case management approaches are described. The costs of producing case management services are presented for selected programs. Less professionalization and less specialization of case management functions are associated with lower service coordination costs in free-standing agencies. Broader scope of case management and use of cost-caps are described as techniques for gaining greater control over publicly supported service use. Some of the ingredients for design of successful case management programs are suggested.

Key Words: Channeling programs, Cost-effectiveness, Service coordination.

Case Management Approaches in Coordinated Community-Oriented Long-Term Care Demonstrations[1]

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To explore different approaches to providing and financing publicly supported, case managed community long-term care, the Health Care Financing Administration (HCFA) sponsored a national evaluation of 15 Medicaid Section 1115 or Medicare Section 222 waiver demonstrations (Capitman et al., 1984). The waivers permitted demonstrations to reimburse for clients and services not typically covered by Medicare and Medicaid. The projects tested whether various methods of coordinated community-oriented delivery of health and social services could result in more cost-effective use of both institutional and noninstitutional long-term care resources. Because of these programs and more recent long-term care initiatives such as the Medicaid home and community-based service waivers, there has been growing interest in providing case management services as one component of comprehensive long-term care. Little descriptive information, however, has been available on the variations in case management methods or other aspects of community care system implementation (Birnbaum et al., 1984).

The primary focus of this paper is on describing the characteristics of case management programs in 12 of the HCFA demonstrations. Data from the five projects that received the greatest attention in the national evaluation will be used to explore the relationship between case management approaches and the costs of the care coordination services. Described in the previous paper were the models, target groups, and service use impacts of these five projects. Relying on results of the evaluation and other studies, the implications of case management system variations for the outcomes of coordinated community-oriented long-term care programs will be discussed.

The national evaluation of coordinated community-oriented long-term care did not devote equal amounts of attention to each of the 15 projects. For example, information on case management practices was available for 12 projects. Seven of these projects were the subjects of independent evaluations sponsored by HCFA or the states. Thus only case studies and reviews of published evaluative findings were available for Triage I and Triage II (Quinn & Hicks, 1979), Georgia's Alternative Health Services Project (Skellie et al., 1982), Wisconsin's Community Care Organizations at LaCrosse and Milwaukee (Seidl et al., 1982), California's Multi-purpose Senior Services Project (Miller et al., 1984), Florida's Pentastar Program (Ross et al., 1984), and ACCESS I of Monroe County Long-Term Care Program Inc. (Eggert et al., 1980).

Since they were not independently evaluated, the following five projects received far greater attention: New York City Home Care Project (Horowitz et al., 1984), Long-Term Care Project of North San Diego County (Hill & Pinkerton, 1984), South Carolina Community Long-Term Care Project (Blackman et al., 1984), Community Care Organization for Dependent Adults of On Lok Senior Health Services in San Francisco (Ansak & Zawadski, 1983), and Project OPEN of Mt. Zion Hospital in San Francisco (Sklar &

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Weiss, 1983). For these projects case studies were augmented by independent analyses of client characteristics, program impacts on functioning and mortality, and program impacts on publicly supported services use and associated payments. These five projects and evaluation methods were also described in more detail in the previous paper.

Three projects originally included in the national evaluation were not included in the analysis of case management. The Texas ICF-II (Dukler et al., 1983) and Oregon FIC/Waiver (Ladd, 1981) did not involve changes in existing approaches to care coordination at the client level and were excluded from the analysis of case management. The ACCESS II program of Monroe County Long-Term Care Program Inc. was delayed in implementation, and an evaluation is ongoing.

The HCFA sponsored community-oriented long-term care demonstrations were diverse with regard to a variety of factors including organizational location, the range of home and community-based service offered through the Medicaid 1115 and Medicare 222 waivers, community characteristics, primary intervention goals, intended target groups, and case management approaches. Yet all projects involved provision of case management and expanded community care services with the goals of reducing public expenditures for the traditionally covered institutional services and fostering lower rates of functional decline and mortality. The complex designs of these projects, however, did not permit an assessment of the effectiveness of case management alone in achieving cost-containment and other outcomes. The demonstration projects allowed for clarification of the characteristics of case management programs and the variations in their design. It was possible to assess the degree to which case management approach variations or other factors accounted for differences in the costs of case management for the five projects for which detailed and comparable data on client characteristics, case management production costs, and overall long-term care costs were available.

Components of Case Management

Case management can be considered as an administrative service that directs client movement through a series of phased involvements with the long-term care system. It is also an advocacy service that attempts to integrate the formal long-term care system with the caregiving provided informally by family members, friends, and community groups. All of the HCFA demonstrations considered in this report offer this service. In all cases there are five readily distinguishable components to the case management process:

Intake and screening is the initial process of identifying potential clients through referrals or other means such as nursing home application, prelimi-

Chart 1
Characteristics of Case Management Approaches in Demonstrations of Coordinated Community-Oriented Long-Term Care

Project	Professionalization of staffing	Task allocation	Scope of case management control	Cost caps
Triage I	Low	Casework	Waivered	N/A
Triage II	High	Casework	Waivered	N/A
WCCO-Milwaukee	High	Casework	Waivered	N/A
WCCO-LaCrosse	Low	Specialized	Waivered	N/A
New York City	Low	Specialized	Waivered	N/A
San Diego	High	Specialized	Waivered	N/A
Project OPEN	High	Casework	Waivered	N/A
Florida	Low	Casework	Waivered	N/A
On Lok	High	Casework	All	N/A
South Carolina	Low	Casework	All Medicaid	75% of average Medicaid payment for client's certified institutional level of care — on waivers
ACCESS I	Low	Specialized	All Medicaid	75% of average Medicaid payment for clients certified institutional level of care — on waivers, Medicaid.
Georgia	Low	Specialized	Waivered	85% of average Medicaid institutional payment — on all use.
MSSP	High	Casework	Waivered and state only	70% of average Medicaid SNF payment — on waivers, Title XX and Title III

nary determination of functional and financial eligibility, and establishing client and caregiver interest in the program.

Assessment and reassessment are the periodically scheduled efforts to develop information about client medical, functional, social and emotional status, and service needs. Multidimensional assessment may be part of eligibility determination and setting a baseline, while reassessments may track client progress and signal needed changes in service packages.

Care planning is the periodically scheduled process of developing a plan for caring for the client that identifies the services to be delivered and the frequency, duration, and goals of these services. This may include meetings with the client, informal caregivers, and involved formal caregivers, or consultation with specialists.

Service arrangement is the process of contacting service providers, the client, and informal caregivers to arrange for care plan implementation. This includes processing referral forms, working with providers to assure service availability, locating other providers, and developing substitute services when necessary.

Monitoring and counseling involves at least three types of tasks including interim monitoring, interim care plan modifications, and counseling. Interim monitoring is ongoing contact with the client and informal caregivers between scheduled assessments to check on client well-being and satisfaction with services and to identify emerging service needs. These activities may lead to interim care plan modification; that is, changes in the type, frequency, duration, or goals of services between scheduled care planning sessions. Counseling and education services may also be offered to clients during monitoring contacts or in response to crisis.

In addition to these components, some case management systems include termination planning; that is, developing client or caregiver resources for ongoing care of the client after removal of case management and expanded community services.

Variations in Case-Management Approaches

Though the HCFA demonstrations share a broad concept of the components and goals of case management, they differ regarding a variety of aspects of these services. Two areas of difference are most noteworthy: the case management staffing and task allocations, and the case management procedures for controlling public service use and costs. Project differences regarding these aspects are summarized in Chart 1 and are described below.

Staffing and task allocation. — The community care demonstrations varied widely regarding the level and training of staff members assigned to case management and the allocation of case management tasks to staff members. These variations are best described along two dimensions: professionalization and specialization. Professionalization refers to the proportion of staff falling into three levels of education, training, and certification; nonprofessional, professional, and advanced professional (see Table 1). It does not refer to the expertise or dedication that case management staff bring to their work but to their formal preparation in areas directly related to the care coordination function. Projects are rated as more highly professionalized when the proportion of staff at the advanced professional level exceeds the proportion at the two lower levels.

Specialization refers to the organization of case management functions. At one extreme are projects that approximate a traditional casework model in that one staff member performs all or nearly all case management tasks for a given client and all staff members can perform all or nearly all tasks. At the other extreme are programs where individual staff members are responsible for specific case management tasks but no single staff member is responsible for all or nearly all tasks for a given client.

As Chart 1 indicates, case management approaches characterized by both high professionalization and high specialization were rare. The only example of this approach was the Long-Term Care Project of North San Diego County, which was located within a certified home health agency. More commonly, spe-

Table 1. Level of Overall Professionalization of Case Management Approaches in Coordinated Community-Oriented Long-Term Care Demonstrations*

Project site	% Nonprofessional	% Professional	% Advanced professional
Lower level of professionalization			
Triage I	55	45	—
WCCO Milwaukee	55	45	—
Florida	50	50	—
WCCO LaCrosse	40	60	—
ACCESS I	5	90	5
Georgia	55	22	22
New York City	50	25	25
South Carolina	38	31	31
Higher level of professionalization			
Triage II	21	4	75
MSSP	34	10	56
San Diego	20	—	80
Project OPEN	14	43	43
On Lok	9	27	64

**Nonprofessional:* Includes clerical and secretarial position; high school graduates; Bachelor's degree in any subject not directly related to the type of services the staff person is performing.

Professional: Training to certification level or Bachelor's degree in a field directly related to the case management service. For nurses, any formal training which leads to RN certification, e.g., Associated Arts degree, diploma, or BSN; for social service workers, includes BSW and Bachelor's degree in a related area such as sociology, psychology, vocational rehabilitation.

Advanced Professional: Specialized education or training beyond the Bachelor's degree. For nurses, Master's degree in Nursing or Nurse Practitioner; social service workers must have at least Master's level training, e.g., MSW, MA in Psychology, Clinical Psychologist (PhD), MD, DDS psychiatrist, registered occupational, physical, and speech therapists.

cialized case management systems were associated with a broader mix of professional levels. In these programs, assessment and care planning functions were the sole responsibility of advanced professionals, while lower level professionals handled intake, service arrangement, and some aspects of monitoring. Specialization in these programs was intended to allow staff to perform those tasks viewed as most appropriate to their training while constraining the overall costs of the case management service.

Case management approaches that approximated the casework model also differed with regard to levels of professionalization. Those classified as having lower levels of professionalization viewed only a few tasks as requiring the input or supervision of advanced professional contract or staff members. These tasks, however, were shared with lower level staff members who thereby became familiar with all aspects of a given case. In those programs the client would tend to deal exclusively with one staff member though other staff might be involved with the case. These models were designed to offer continuity to clients but they still constrained costs and encouraged reliable decision-making by using advanced professionals in those roles where they were considered most needed. Finally, some case management approaches approximated the casework model but with high levels of professionalization. By having a single professional or advanced professional staff member involved with all aspects of the case, continuity was maintained for both the client and case management worker. Further, the client was assured of having highly trained and experienced personnel for all case management components.

Case management approaches to controlling service use. — In all projects, case management approaches were intended to increase the coordination and appropriateness of service delivery. In many projects, however, case management was viewed as a mechanism by which the overall intensity and public costs of services could be controlled. At least two aspects of case management approaches appeared directly related to the control of service use and associated public costs: the scope of case management control and costs caps.

As shown in Chart 1, most projects were only able to control the use of waivered services. They were responsible for establishing the type, intensity, and duration of service delivery for those services included in the Medicaid or Medicare waivers. California's Multipurpose Senior Services Project (MSSP) had additional control over state general fund-supported community care services. While many of the projects with limited case management scope had extensive arrays of waivered services available and were able to plan and make referrals for other services, they were not able to control the overall costs of the community care package.

By contrast, three projects were able to control a broader array of services. On Lok's Community Care Organization for Dependent Adults, based on the health maintenance organization model, directly provided or contracted for all health and social services provided to its clients, including acute care and nursing home care. On Lok clients could not access other publicly supported programs, nor could they use institutional services without the direct involvement of the project staff. South Carolina's Community Long-Term Care Project and ACCESS I of Monroe County, New York, both adopted a nursing home pre-admission screening and case managed community care model. They were able to directly control access to institutional long-term care and were responsible for approving the delivery of all Medicaid supported community health and social services. They were not able, however, to control use of Title III or Social Service Block Grant (SSBG) supported services.

Results from the MSSP and Wisconsin Community Care Organization-Milwaukee demonstrations underscored the importance of the scope of case management control. In both of these programs, use and costs of nonwaivered community care services were greater than waivered services with detrimental results for overall cost-effectiveness (Miller et al., 1984; Seidl et al., 1986).

Cost caps were used by four demonstrations as an additional mechanism for controlling the overall level of services made available to clients. ACCESS I and South Carolina established a cost cap on services on an individual basis. The costs of Medicaid services in the community could not exceed 75% of the costs associated with the Medicaid institutional care per diem for the client's certified level of care. Individual cases were permitted to exceed this cap if no nursing home bed was available or the excessively expensive community care package was to be of short duration. MSSP and Georgia's Alternative Health Services Project used a somewhat different approach. In these projects, the cost associated with community care could not exceed a specific percentage of averaged nursing home cost. In Georgia this was about 85% of the averaged intermediate care/skilled nursing facility monthly per diem, while the MSSP cap was set at 70% of the averaged monthly skilled nursing facility per diem. In both projects a particular case's care plan could exceed the cap under special circumstances. In neither case was the cap varied as a function of disability level. While the Georgia cost cap was applied to the full range of waivered and traditionally covered Medicaid services and all other health and social services, in MSSP only waivered services, state and social services were included, but traditional Medicaid and Medicare expenditures were not.

Production Costs of Case-Management

To assess the significance of care coordination approach variations on overall public costs of the demonstrations, detailed accounting studies of case management production costs were conducted for the five projects featured in the longitudinal analyses of client characteristics and resource use. For these projects data were also available on use and pay-

Table 2. Production Costs of Case-Management in Selected Demonstrations of Coordinated, Community-Oriented Long-Term Care

Project	Case management staff costs per client per month	Case management total cost per client per month	Averaged monthly combined Medicaid and Medicare payments	Case management cost as proportion of averaged monthly combined Medicaid and Medicare payments
South Carolina	$40	$47	$8[illegible]	5%
On Lok	$50	$81	$1,170	7%
New York City	$86	$96	$1,108	9%
Project OPEN	$97	$117	$799	15%
San Diego	$105	$134	$939	15%

ments for traditionally covered and waivered Medicaid and Medicare services. The average monthly cost of case management for a client was estimated by dividing total case management personnel, administrative and overhead costs for each project during a 6- to 12-month mature operational phase by the number of active participant months accrued in the period. Only costs that were directly attributable to the case management functions of the agency and not a direct reflection of its status as a demonstration and research project were included. Similarly, only staff and administrative time related to case management as defined by the evaluator were included, and indirect costs were attributed to case management based on the proportion of total staff effort devoted to the coordination services. All estimates were adjusted for differences in depreciation policies and recognition of in-kind contributions.

Table 2 presents the results of the production costs study. The table reveals broad variation in the average monthly costs for case management services. Table 2 indicates much of this variation may be attributed to differences in personnel costs. Production cost differences appeared to be determined by both the staffing approach variations described above and by overall project model differences. Thus, while On Lok's case management approach was highly professionalized and used a casework model of task allocation, case management was highly integrated into the overall operation of the program. The On Lok delivery system resulted in a greater level of ongoing contact between all case management and service personnel since all staff served these dual roles and were co-located. As a result, staff needed to commit less time to case management functions.

All other projects were free-standing case management agencies. Among these projects, less professionalization and less specialization were associated with lower case management production costs. South Carolina and New York City were both characterized by low levels of professionalization and had lower production costs than Project OPEN and San Diego with higher professionalization. Further, South Carolina's casework model was less expensive than the New York City specialized model, and Project OPEN's casework model was less expensive than San Diego's specialized approach. These differences remained even after adjusting estimates for regional differences in cost of living.

Other Explanations for Variations in Case Management Costs

Since the estimates of case management production costs are at the level of the project rather than the individual participant, it is not possible to examine differences in case management costs controlling for individual differences in client features. Nonetheless, it is possible that variations in case management costs on an average monthly basis reflect differences in demonstration project case mix. Data presented in the previous paper, and in Table 2 suggest that this is not the case. In terms of functional characteristics, data presented in the previous paper suggest that South Carolina had the highest proportion of clients dependent in the activities of daily living, instrumental activities of daily living, and ambulation, while On lok had the highest proportion of clients with incontinence and cognitive impairment. Yet these were the two projects with the lowest costs for case management on a monthly basis. Similarly, San Diego and Project OPEN had the lowest proportion with disabilities and cognitive impairments but had the highest costs for case management. It does not appear that case management production costs are associated with case-mix as represented by basic functional measures.

Table 2 presents data on case management costs as a proportion of total averaged monthly combined Medicaid and Medicare service payments. The derivation of the averaged monthly payments by Medicaid and Medicare follows the methods described in the previous paper for service use estimates. As Table 2 shows, case management costs are a higher proportion of total averaged monthly service payments in those projects with higher case management costs. Further, averaged monthly total service payments are not higher for projects with more expensive case management approaches. These results suggest that the average complexity or intensity of service packages does not explain variations in case management costs at the project level.

Discussion

The primary goals of this paper were to examine variations in the design and production costs of case management services in the HCFA sponsored coordinated community-oriented long-term care demon-

strations. Case management consistently included such functions as intake and eligibility determination, assessment and reassessment, care planning, service arrangement, and interim monitoring. The design of case management approaches, however, varied with respect to the professional levels of staff devoted to case management functions, the allocation of case management tasks to staff, and in the use of case management as a cost-control mechanism. The assessment of the relationship between case management approaches and the costs of the coordinating services was limited to only five projects. Nonetheless, variations in professionalization and specialization appeared related to overall case management production costs in free-standing channeling agencies. Less professionalization and less specialization were associated with lower costs. The use of a consolidated delivery approach was also associated with relatively constrained case management costs, even though On Lok adopted a highly professionalized approach. Variations in demonstration project case-mix or overall service intensity did not appear to be related to case management costs, but these results should be viewed with caution since they were limited to just five projects.

The demonstrations not only offer case management services, but also expand the availability of home and community-based services to targeted Medicaid or Medicare beneficiaries. The coordination of existing and new services is intended to foster better maintenance of functioning, lower rates of mortality, and lower public costs. Because case management is only one component of these projects, they do not provide an adequate context for assessment of the relative success of the case management approaches in achieving these client and public cost outcomes. A full presentation of the functional change, mortality, and cost-effectiveness findings from the demonstrations is beyond the scope of this paper. A brief review of these findings permits speculation that such program features as targeting and intervention approach are at least as important in determining overall project goal attainment as are the characteristics of case management approaches.

Results from the prior studies on functional change and mortality impacts of case management and expanded community care programs found no evidence for overall treatment effects on mortality, activities of daily living, instrumental activities of daily living, and mental status at 12 months after enrollment (Miller et al., 1984; Quinn & Hicks, 1979; Ross et al., 1984; Seidl et al., 1980; Skellie et al., 1982). Among the five projects featured in the national evaluation, none was associated with significant group differences in mortality or changes in dependence in activities of daily living (Capitman et al., 1984). One project, On Lok, showed treatment clients improving in instrumental activities of daily living while comparison group clients declined. No other project was associated with significant impacts on dependence in the instrumental activities of daily living. Two projects (New York and San Diego) were associated with treatment client improvements in cognitive functioning relative to comparisons after 12 months. In general, case management and expanded services did not appear to impact on functioning or mortality in these projects. It is noteworthy that the two projects with specialized case management systems were associated with more positive impacts on cognitive functioning, though this finding was not obtained in earlier demonstrations with specialized management.

Since more professionalized and more specialized case management approaches appeared more costly at least in the five projects featured in the national evaluation, these results suggested that less complex coordination systems may be preferable. They did not suggest that professionalization and specialization should be avoided completely. Professional involvement in case management may still have been necessary since even the less professionalized approaches in the demonstrations used advanced professionals for some functions. Similarly, even those models that approximated traditional casework in task allocation still considered some tasks as requiring the involvement of particular types of personnel.

Results from the prior studies suggest that in general, case management and expanded community-based long-term care are not effective in reducing the overall public costs of care (Miller et al., 1984; Quinn & Hicks, 1979; Ross et al., 1984; Seidl et al., 1980; Skellie et al., 1982). Similar results were obtained for three projects (New York, San Diego, and Project OPEN) in the national evaluation (Capitman et al., 1984). Yet in prior studies, projects or components within projects that served individuals who satisfied functional criteria for nursing home admissions and were identified at the point of nursing home application were more likely to obtain cost containments goals (Birnbaum et al., 1984; Eggert et al., 1980; Miller et al., 1984). In the national evaluation, two projects, South Carolina and On Lok, were associated with overall Medicaid and Medicare costs lower for treatment than control groups (Capitman et al., 1984). Both served institutional-level target groups, and South Carolina identified participants through nursing home pre-admission screening.

The public cost impact analyses across projects tend to confirm that targeting goals and mechanisms for client identification are crucial elements of cost-effective long-term care systems. The characteristics of case management approaches appear important as well. Among the projects featured in the national evaluation, the two projects with the lowest monthly case management costs (South Carolina and On Lok) also exercise greater control over service use and obtain the most positive cost-effectiveness findings. These two projects, as well as MSSP and ACCESS I, all involve control of services other than the waivers within the scope of case management, and all involve cost-caps or capitated reimbursement. Increasing the scope of case management and use of other cost control mechanisms while constraining the costs of the administrative service appear to be important ingredients in design of successful community long-term care programs.

The description of case management program variations suggests the range of issues that need to be considered in developing long-term care coordination programs. It appears likely that case management and expanded community long-term care services are most effective when offered to individuals at the institutional level of care who are actually considering nursing home placement. More demonstration and research efforts are needed to explore what care coordination approaches are most effective for individuals without short-term risk of nursing home admissions. At the same time, other elements in the design of case management programs beyond those discussed need to be considered including the relationships between the channeling agency and other providers, the assessment and care-planning protocols, and the methods for integrating the efforts of informal caregivers and service providers. None of these issues is given adequate treatment in the national evaluation. Designing effective case management programs requires addressing the elements described in this paper and other program components in the context of the program goals, intended client groups, and community characteristics of a particular long-term care system.

References

Ansak, M. L., & Zawadski, R. T. (1983). On Lok's CCODA: A cost-competitive model of community-based long-term care. San Francisco: On Lok Senior Health Services.

Birnbaum, H., Burke, R., Swearingen, C., & Dunlop, B. (1984). Implementing community-based long-term care: Experience of New York's long-term home health care program. *The Gerontologist, 24*, 188–195.

Birnbaum, H., Gaumer, G., Pratter, F., & Burke, K. (1984). Nursing home without walls: A final report. Cambridge, MA: Abt Associates, Inc.

Blackman, D. K., Brown, T. E., & Learner, R. N. (1984). Four years of community long term care project: The South Carolina experience. *Pride Institute Journal, 3*, 36–49.

Capitman, J., Haskins, B., DeGraaf, B., Bernstein, I., Daro, D., Hanson, S., Kogan, D., Press, N., Raffe, S., Yordi, C., & Spivack, S. (1984). Evaluation of coordinated community-oriented long-term care demonstrations: Draft final report. Berkeley, CA: Berkeley Planning Associates.

Dukler, M., Caldwell, N., Newman, M., & Cunnerman, K. (1983). Modification of the Texas system of care for the elderly. Austin, TX: Texas Department of Human Resources.

Eggert, G., Bowlyow, I., & Nichols, C. (1980). Gaining control of the long-term care system: First return from the ACCESS experiment. *The Gerontologist, 20*, 356–363.

Hill, D., & Pinkerton, A. (1984). Final Report: The long-term care project of North San Diego County. San Diego, CA: Allied Home Health Association.

Horowitz, A., Brill, R., & Dono, I. (1984). Delivery of medical and social services to the homebound elderly: A demonstration of intersystem coordination. New York: New York City Department for the Aging.

Ladd, R. (1981). FIG/Waiver Continuum of Care Project for the Elderly. Salem, OR: Oregon Department of Human Services.

Miller, L., Clark, M., William, M., & Clark, W. (1984). California's multipurpose senior services project: A final report. Sacramento, CA: California Health and Welfare Agency.

Quinn, J., & Hicks, B. (1979). Triage: Coordinated delivery of services to the elderly: A final report. Plainville, CT: Triage, Inc.

Ross, N., Begor, Y., Papgiannis, M., & Springfield, T. (1984). Final report and evaluation of the Florida Pentastar Project. Tallahassee, FL: Florida Department of Health Rehabilitative Services.

Sendi, F., Applebaum, R., Austin, C., & Mahoney, K. (1980). Delivery of in-home services to the aged and disabled: Wisconsin community care organization: A final report. Madison, WI: Fave McBeath Institute on Aging, University of Wisconsin.

Skellie, A., Mobley, G., & Cohen, E. (1983). Cost-effectiveness of community-based long-term care: Current findings of Georgia's alternative health services project. *American Journal of Public Health, 72*, 353–358.

Sklar, B., & Weiss, L. (1983). Project OPEN: Final report. San Francisco: Mount Zion Hospital and Medical Center.

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To investigate the uses of paid family caregivers, a nationwide survey of jurisdiction-wide programs was conducted. In all, 50 jurisdictions, including 46 states, the District of Columbia, and 3 territories responded to a questionnaire mailed to 3 agencies in each jurisdiction. A total of 89 questionnaires were returned by 165 possible respondents. Of the 50 jurisdictions, 35 (70%) permitted some form of family caregiver payment. Most jurisdictions had provisions to limit the size and possible abuses of their program. The findings suggested an opportunity for advocates of family caregiving to incorporate families into formal service programs.
Key Words: Home-Care, Family caregiving, Family payments, Policy analysis

States' Policies Regarding Paid Family Caregiving[1]

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In few areas do the resources of government and the moral obligations of families conflict so much as with respect to the proper roles of family and of government in support of elderly people. Government programs are faced with increasingly distasteful choices among competing needs and objectives in serving the frailest and poorest elderly population. The dilemma is to sustain informal caregiving and simultaneously contain the use of expensive institutional care and increasingly scarce health care resources. Families paid by public programs to provide home-care may serve as links between government and needy elders and may bridge the gap between formal and informal care systems.

Despite the evolution of America's advanced industrial and highly mobile society, high levels of family support of elderly people persist even for the most frail elderly (Brody, 1985; Shanas, 1979; Wagner & Gleeson, 1980). Many frail elderly persons prefer family caregivers, especially for help with intimate and financial problems, although findings about preferences are mixed (Brody, 1981; McAuley & Blieszner, 1985). Arling and McAuley (1983) have observed that data are not available describing whether older people prefer related or non-related caregivers when the caregiver is paid, or if they prefer caregivers who are previously unknown to them. Middle generation family members generally desire services that directly assist them in providing help (Horowitz & Shindleman, 1983) or financial assistance (Sussman, 1977). Families request respite and counseling information about care methods, as well as financial support (Cantor, 1983; Crossman et al., 1981).

In recent years, as the states have been forced to limit more expensive per capita expenditures on institutional care, home-care services for elderly persons have become increasingly important to them. States, local governments, Area Agencies on Aging, and private agencies share the actual responsibility with families and recipients for financing and providing home-care services, and the belief is widely held that home-care services can delay or relieve the need for institutional long-term care and provide relief to caregiving families. The extent to which this mixture of governmental and quasi-governmental agencies includes family caregivers as an integral part of the caregiving network is not well-documented but is a critical aspect of their approach and orientation to the problem.

The urgency of the question of who is responsible to provide care for elderly people has already intensified for state governments because of several recent and interrelated trends. In most states nursing home admissions have slowed as a result of falling state revenues, government retrenchment, and caps on the federal matching rate for Medicaid, but pressure for expansion of capacity has been exacerbated by Medicare prospective payment reforms and the resulting limits on hospital stays. The high rate of structural unemployment throughout the 1980s has put chronic fiscal stress on state revenues as well as on public assistance budgets. From 1979 to 1982, the aged population slipped from 18.8% to only 15.3% of Medicaid recipients (Ruther et al., 1986). In many cases the obvious high cost of institutional long-term care has forced state governments to limit their

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choice of care for elderly persons to home-care services, or no care at all.

For those responsible for health care financing and community services at the higher levels of state and federal government, and at the service delivery level, choices are made among such alternatives. Choices may be severely constrained by political opportunities, federal policy, state organizational structure, and state rules and regulations, making efficient choices difficult to identify.

State welfare officials, faced as they are with both the needy elderly and needy families, must confront the question of how best to support both. They exercise discretion in limiting assistance to low-income persons or to those found to be in physical need. They make decisions on the question of whether family members should be paid for providing care to a frail elderly relative. Regulations and policies about family home-care are known to be conflictual with regard to eligibility, entitlement, and funding guidelines (Wagner & Gleeson, 1980).

Systematic investigations of family payment options are few. The only previous study in which family payments were directly assessed was undertaken under contract to the Health Care Finance Administration (Burwell, 1986). The 13 state programs examined were discovered by reviews of the literature and through informal resource sharing, rather than by polling the 50 states. The programs varied in size, funding sources, and relationship to other programs. Burwell raised a number of issues related to payments to families, including possible abuses of family payments options by payment to families not providing care, psychological or physical abuses by caregivers, targeting, demand, and efficiency issues. The current study adds several dimensions of information about state policy makers' perceptions of the advantages and disadvantages of payments to family members, additional family support systems, and the extent of family payment programs throughout the country.

In 1985, the Illinois Department of Aging joined with the Illinois Association of Family Service Agencies to review current and potential payment of family members to provide personal care, chore, and homemaker services to elderly relatives. The Department had experienced growth in its Community Care Program to almost 20,000 clients by 1985, with projected increases for 1986 and 1987. A collaborative study with the Illinois Association for Family Service Agencies and the University of Illinois Department of Medical Social Work in the College of Associated Health Professions was devised to investigate policy options. The research included an examination of the Illinois experience and that of other states. The data that follows reflects this nationwide survey of the policies of jurisdictions and the assessment of program administrators of the advisability of allowing or encouraging paid caregiving by family members. Answers to the following questions were sought: To what extent and under what circumstances do jurisdictions permit public payments for family caregiving? How do states use various sources of federal and state funding to pay families for providing home-care services? What are the implications of programs to pay families to provide care to the poor and most needy elderly persons, particularly when program resources are scarce and there are limitations upon how many clients can be served?

Methodology

The survey instrument was sent in early April 1985 to three key agencies in each of the 50 states, the District of Columbia, and four territories (American Samoa, Guam, Puerto Rico, and the Virgin Islands). Using the 1984 directory of the American Public Welfare Association, the mailing was addressed to the current director of each of three agencies: the State Unit on Aging, Public Welfare, and Social Services (in some instances divisions or subunits of a larger human services department). This approach maximized the probability of receiving responses from at least one decision-maker in each state. Responses to the survey and reports and analyses of state programs making financial payments to family caregivers were requested.

Of 165 questionnaires sent, 89 (54%) were returned, providing at least one response each from 46 states, the District of Columbia, and three territories (Guam, Puerto Rico, and the Virgin Islands), that is, 50 jurisdictions in total. (No surveys were returned from Georgia, Indiana, Maine, Vermont, or American Samoa.) Of the 89 completed questionnaires, 22 states or territories returned only one questionnaire, whereas 20 returned two, 7 returned three, and one (Ohio) returned four. Several agency executives responded with letters but forwarded the actual instrument to the appropriate agency analyst or program director. In addition, 14 states provided substantial supplemental material and analysis of their program's policies.

Not all agencies that responded were responsible for all home-care services in their state and many did not comment on policies of other agencies. Consequently, in some cases it remained unclear to what extent a family payment policy is standard practice. Over half the jurisdictions returning questionnaires, however, represented the view of more than one agency and were corroborated by other sources, producing fairly strong confidence in the reliability of the data. Whether a state does or does not permit payments to family caregivers is not certainly established by the study, but a provocative description of the policies and practices of state agencies in regard to family payment programs is generated.

The questionnaire consisted of 10 questions, beginning with inquiry about whether the state provides funds for home services for elderly persons, and type of services funded. Respondents were then asked whether programs allowed for family payments and, if so, under what circumstances? The respondents reported what they perceived as reasons for or against payments to families and, if they prohibited payments, the reasons for the prohibition. Respondents who replied that the state had no

provision for family payments were asked how they dealt with family members who wished to be paid providers. Finally, the respondents were asked if there were other state agencies that provided family payments.

The questionnaires and documents were reviewed and compared with the Burwell (1986) survey of 13 state Medicaid programs already known to provide financial payments to family caregivers. Data were also compared with information available on states' experience with Medicaid waivers under Section 2176 of the Omnibus Reconciliation Act of 1981 (U.S. Senate Committee on Finance, 1983). Findings were based on the responses to the survey instrument and supplemented by the other data on the states' experiences.

Findings of the Survey

The 50 responding jurisdictions reported the provision of an extensive array of home-care services for elderly persons, including personal care, homemaker services, home health services, meals, day care, and others. Virtually all states were significantly involved in diverting institutional placements by devising and providing a package of community-based long-term care services.

Presented in Table 1 are the state responses by reporting agency, whether the state has a 2176 waiver to use Medicaid funds for community services, and findings in the previous HCFA study about family payments. Respondents from 35 (70%) jurisdictions (33 states, the District of Columbia, and Puerto Rico) noted that some form of financial payment is allowed to relatives for providing home-care to clients. A jurisdiction was considered to have indicated "yes" if any responding agency reported that a state program allowed payment to relatives for providing at least one of the earlier-mentioned services and that it did not prohibit payment to relatives. Of the 50 jurisdictions, 15 (13 states, Guam, and the Virgin Islands) stated that they did not permit payment to relatives.

A gray area between yes and no was reflected by the wide range of actual conditions under which family payments may occur. The policies prohibiting payment to relatives revealed more about this issue than whether payments are allowed or not. The states indicating that they do not allow payments to relatives are discussed first, followed by discussion of those allowing payments. This is followed by a discussion of the areas of acknowledged uncertainty which complicates formal categorization of states' policy positions.

States Prohibiting Payment to Relatives Providing Home-Care

In all, 15 states clearly do not allow their agencies to pay relatives for providing home-care (see Table 2). Federal Medicaid regulations prohibit the payment of relatives under the definition of Personal Care Services under CFR470.170(f). These requirements define Personal Care as "services prescribed by a physician in accordance with the recipient's plan of treatment and provided by an individual who is 1) qualified to provide the services; 2) supervised by a registered nurse; and 3) not a member of the recipient's family" (Burwell, 1986). Not all states cited the Medicaid exclusion of family members as a specific reason for disallowing payments to family caregivers. Although the same constraining Medicaid regulations apply to all states, the perceived significance of the federal prohibition varies.

The state's own prohibitions or conditions were mentioned almost as frequently as the federal regulations as reasons for disallowing payments to relatives. The non-federal restriction included state laws or regulations of programs funded with state monies, as well as Title XX (Social Services Block Grant) and Title III B of the Older Americans Act. In all, 7 of these 15 states cited state rules as the reasons for not allowing payments to relatives and such restrictions were largely related to state governments' cost containment concerns.

Some states which disallowed payment to caregiving relatives mentioned that they had at least considered allowing it. Pennsylvania noted that such payments have been discussed "but not officially." One state had a demonstration project and another had considered funding a pilot test. Nevada actually allows payments to parents of mentally retarded children, but not to relatives of elderly people, and in Mississippi tax credit legislation was proposed, but it did not pass. Rhode Island simply replied that agency providers decide, not the state. The equity concerns raised by programs that pay professionals but disallow payment to family caregivers are widely, though apparently not universally, recognized.

States Permitting Payment to Caregiver Relative

The use of payments to family caregivers is typically restricted to very specific circumstances under which clients are at high risk of institutionalization. In some jurisdictions payments are also restricted by the program's locus in one agency rather than another and by its reliance on certain funding sources. These restrictions are discussed first as general conditions placed on client or caregiver eligibility and benefits and then in terms of administrative (or structural) constraints imposed by the agency responsible or by its funding sources.

Conditions on client caregiver eligibility and payment. — Specific conditions in each program encompass a continuum of restrictions on eligibility, ranging from granting the client total discretion in hiring a caregiver to the state agency's complete management of home-care and protection of the interests of the client (a kind of 'in loco parentis' in reverse). "Allowing clients to use their own SSI supplementation checks as they choose" illustrates the first extreme. Providing reimbursement only "if the relative provider is a licensed homemaker or care provider" illustrates the other extreme. Along this continuum many other conditions and restrictions reflect the states' interests in the caregiver, their need to con-

Table 1. States Responses by Agency Allowing Paid Family Caregiving, indicating States having a Medicaid Home and Community Based Care waiver. States included in the SysteMetrics report and States Allowing Payment of Caregiving Relatives

	Medicaid waiver[a] (n = 30)	Syste-Metrix[b] (n = 14)	Paid family care[c] (n = 50)	Agency Respondents		
				Aging (n = 36)	Public welfare (n = 27)	Social services (n = 29)
AL	x	Yes	Yes	No	Yes	Yes
AK			Yes	No	Yes	—
AZ			Yes	No	Yes (SSP)	No
AR			No	No	—	—
CA	x	x	Yes	No	Yes	Yes
CO	x	x	Yes	Yes	—	Yes
CT	x	x	Yes	—	Yes	Yes
DE	x		No	—	No	—
DC			Yes	—	—	Yes
FL		x	Yes	—	Yes	No
GA	x		—	—	—	—
HI	x		Yes	No	No	Yes
IA	x		Yes	Yes	—	Yes
ID			Yes	No	Yes	—
IL	x		Yes	Yes	Yes	—
IN			—	—	—	—
KS	x	x	Yes	Yes	—	Yes
KY	x		No	No	—	—
LA	x		No	—	No	—
ME			—	—	—	—
MD		x	Yes	—	—	Yes
MA	x	x	Yes	Yes	No	—
MI		x	Yes	No	Yes	Yes
MN	x	x	Yes	No	—	—
MS			No	No	No	—
MO	x		No	No	—	—
MT	x		Yes	—	Yes	—
NC	x		Yes	Yes	—	Yes
ND		x	Yes	No	Yes	Yes
NE			Yes	Yes	—	Yes
NV	x		No	No	No	—
NH			Yes	—	Yes	—
NJ	x		No	—	No	—
NM	x		Yes	—	—	Yes
NY	x		Yes	No	Yes	—
OH			No	No	No	No
OK		x	Yes	—	—	Yes
OR	x	x	Yes	Yes	No	Yes
PA	x		No	No	—	—
RI	x		No	—	No	—
SC	x		No	No	No	No
SD			Yes	—	—	Yes
TN			No	—	—	No
TX	x		Yes	Yes	Yes	Yes
UT	x		Yes	Yes	—	Yes
VT			—	—	—	—
VA	x	x	Yes	No	—	Yes
WA	x		Yes	Yes	No	Yes
WV	x		Yes	Yes	—	Yes
WI		x	Yes	No	—	Yes
WY			Yes	—	Yes	Yes
AS			—	—	—	—
GU			No	—	—	No
PR			Yes	No	—	Yes
VI			No	—	No	—
Total	Yes		35[d]	13	15	25

[a]State had Medicaid waiver for home-care of the aged approved as of September 30, 1983.
[b]SysteMetrix (Burwell, 1986) indicated state provides reimbursement to family caregivers.
[c]At least one agency in the state reported allowing payment to relatives caring for elderly, as reported by the agencies.
[d]Total across row is more than 35, due to multiple agency responses.

tain costs, and general norms about work and dependence. Although the conditions shown in Table 3 should be considered suggestive rather than exhaustive, a few restrictions are especially noteworthy.

Client discretion in employing caregivers. — State cash grants, often supplementary payments (SSP) of SSI, are the most direct and universal means by which states can assist individuals and families and

allow them maximum discretion. It is considered an inefficient mechanism because states cannot target individuals requiring home-care. The greater the states' supplementation payments, however, the more care recipients can purchase. In Alabama "the recipient may pay any related or non-related person who lives in or outside the home for personal care services," but the SSP is only $60 maximum per month. Arizona offers the same option: "the SSI client may receive up to $70 per month for housekeeping and they (sic) may arrange for a relative to perform this task."

The Alabama and Arizona programs are minimal when compared to California, where in 1983 the SSP level was $794 per month for an individual living independently, $250 more than any other state. A total of 10% of California's elderly receive SSI/SSP. This is generous and widespread coverage when compared to 5.9% of the elderly population nationwide. Because California's other home-based-long-term care provisions are also relatively extensive, it is impossible to determine how much this provision alone contributes to keeping a greater proportion of clients independent. Many states with no or low SSP claim they have put additional federal resources into in-kind benefits providing greater overall value to clients (for example, Medicaid, energy assistance, or housing benefits) instead of state cash.

To compensate for less available monies, other states target their grants of discretionary funds more carefully. Rather than use SSP, Hawaii uses a special Title XX provision to pay for family care for low-income frail elderly persons without other resources. As with SSP, payments are made to the recipient who, in turn, pays the chore provider, who can be any "non-legally responsible relative." (No payments are made for personal care or medical care.) Oregon allows about 75% of its home-care clients this same discretion to purchase care from whomever they choose. In some counties of Wisconsin home-care clients also receive what is basically an allowance and pay the caregivers themselves. Michigan allows some 24,000 clients to choose their own personal care provider, of whom about half are relatives. The payment check is written to both the client and provider. The kind of client discretion in these programs is quite similar to that provided by the Veteran's Administration's Care and Attendant Program, which currently serves about 500,000 disabled veterans nationwide.

Table 2. The Basis for Disallowance of States and Jurisdictions Disallowing Payments to Caregiving Relatives (n = 15)

Reason reported for disallowance	Number	States included
Prohibited by federal regulations	10	DE,KY,LA,MS,MO, NY,NJ,SC,GU,VI
Prohibited by state statutes or regulations	7	MS,MO,NJ,OH, PA,SC,TN
Was tried or considered in the past	2	AR,OH
Can't reliably estimate cost	1	OH
Purchase care from agencies only, not from individuals	1	RI

Table 3. Eligibility, Benefit Type and Administrative Restrictions of States and Jurisdictions Allowing Payments to Caregiving Relatives[a] (n = 35)

Program characteristics	States/jurisdictions where noted
Client uses other subsidy (i.e., SSI) to hire own care provider	AL,AZ,CO,HI,MI,WI
Kinship limitations[b]	
Allow payment to spouse	CA,CO,CT,DC,FL,KS,MD,MN,OR,WA,WI
Allow payment to adult children (not spouses)	HI,MI,NH,NM,TX
Allow payment only to non-immediate relatives (neither spouse nor adult children)	MT
Requires relative-caregiver to apply for welfare if eligible	CT,ND,WA
Residence limitations	
Only if co-reside	FL,NH,ND,UT
Only if do not co-reside	NH,NE,VA
If no other home help is available	ID,MD,NE,OK
Licensure	
Only if relative is a licensed homemaker or provider	AK
Only if relative is employed by a contract agency	IL,KS,NC
Only if client speaks only a foreign language	OK
Only if caregiver gives up or would otherwise take employment	ID,MD,NC,UT,WA,WY,PR
Payments are restricted to certain services only[c]	DC,IA,NE,NH,NY,SD,WY
At pilot/demonstration sites only	MA,NM
Care purchased by counties or vendors	
Relative employed by county or AAA managed system	CO,IA,NC,TX,WV,WI,PR
Relative is employee of a vendor/contracting agency	AK,IL

[a]Thirty-five states answered they allow paid family caregiving, but they did not all cite particular details or restrictions. Thus, data here are neither comprehensive nor complete, but suggestive of issues.

[b]Only 17 states cited information about which relatives could and could not be paid. The other 18 states may or may not have exclusions on spouses or other relatives. These data are not available and merit further investigation.

[c]These states cited particular restrictions on the basis of service to be performed. In fact, all states restrict payment by service type to some degree.

The administrative advantage of these arrangements is that in each case, to varying degrees, the state (or its case management subcontractor) avoids direct liability for payment (responsibility for either rates or the monitoring of quality) by underwriting a financial transaction that occurs strictly between the client and a client-selected provider. Not directly employing providers has allowed a few states to circumvent federal prohibitions under Medicaid and to avoid union bargaining and coverage of fringe benefits. At least eight states subcontract purchase of care to county governments or Area Agencies on Aging (AAAs) and three others subcontract purchase to vendor agencies.

Unfortunately, with total client discretion there is no case management to protect the client's interests or handle the client's administrative tasks. For example, Michigan has recently had to increase case management services because the courts have declared that clients must deduct FICA and taxes from payments to their caregivers and this is beyond the capability of many clients. It has also had to cap maximum monthly payments to preclude Workers' Compensation deductions. In avoiding liability as the employer, the state has, in effect, passed that liability on to clients. Offering an incentive to the poorest families is obviously not simple and requires genuine administrative creativity.

Kinship. — In addition to the restrictions that essentially affect the client's interest, criteria for caregiver eligibility can be numerous and complicated. The most noteworthy complications are jurisdictional rules that either prohibit or permit payment to family caregivers and, in the latter case, specify which relative may receive payment. Because of the prevalence of spouses in family caregiving, the most important may be whether or not a spouse is eligible for financial reimbursement or payment. This involves the state's judgments as to whether the spouse's care (and provision of an incentive to sustain it) "produces a marginal benefit."

These data suggested that whether payments to spouses are allowed depends strongly on the source of funding supporting the state's home-care program. As noted earlier, the federal Medicaid regulations regarding Personal Care prohibit reimbursement of relatives. Consequently, states seem to pay spouses from such alternative sources of funding as Social Services Block Grants (formerly Title XX), the Older Americans Act, state general funds, or Medicaid provisions other than Personal Care. The Medicaid Home and Community-Based Care waivers appear to be an increasingly important source of coverage.

Of the 17 states that listed kinship restrictions, only 6 allowing payment to family caregivers noted that spouses are excluded from eligibility (Hawaii, Michigan, New Hampshire, New Mexico, Texas, and Montana). Other states may also exclude them, but because explicit kinship restrictions were not specified, it is possible to assume they did not. The exclusion of spouses raises many concerns, but seems at least partially dependent on whether Medicaid is used as the funding source.

Of the at least 24 states using Medicaid to make payments to relatives for home-care, only a few disallow payment to spouses. The Michigan Adult Home Help program, for example, disallows payments to spouses (Burwell, 1986). While under severe fiscal pressure in 1980, Michigan began to shift the financing for many of its Title XX services to Medicaid to maximize federal matching funds. To do so it amended its official definition of family to include only those relatives legally financially responsible (spouses and parents of minor children). Under Medicaid coverage other relatives not financially responsible are allowed payments. The 19 states which purchase Personal Care (of which 14 cover the medically needy) are precluded in this same way from including spouses and have had to find ways to keep adult children from being excluded as relatives.

Most states operating under Medicaid Home and Community-Based Care waivers, however, seem to have allowed payment to spouses in their respective packages of Medicaid-eligible home-care services, if costs could be kept within allowable ranges. The waivers allowed states flexibility in paying spouses, but of course also imposed severe cost constraints. (Weissert, 1986). Because comprehensive data is not available, kinship restrictions in only 17 of the 35 states allowing payments to relatives is shown in Table 3. Coverage of adult children is not so problematic under Medicaid. Only Montana seems to exclude them (and spouses), although it approves other relatives.

At least three states require caregivers to meet welfare income guidelines before remuneration is allowed. Washington requires the relative caregiver to be otherwise eligible for General Assistance for his or her own needs. Connecticut requires that if caregivers qualify for public assistance, they must apply for it, and then the Essential Services Program will pay the caregiver an extra allotment for their services. North Dakota further restricts payments under its Family Home Care program to family caregivers who are eligible for public assistance only. Payments may be made to the client or the provider.

Licensure and screening. — In contrast with the emphasis on client discretion in employing the caregiver, four states permit payment to, or pay relatives if (or only if) the relative is a licensed provider or employee of a contract agency. By requiring employment with a certified agency or licensure of all personnel, the state attempts to ensure the quality of patient care. Alaska mentioned that family caregivers who are paid must be licensed. North Carolina noted that a relative could be paid if they were "an employee of a contract agency."

States that reimburse relatives with Medicaid are highly attentive to the monitoring of home-care because of Medicaid's requirements for utilization review. States operating under Medicaid 2176 waivers tend to screen providers (including relatives) and to monitor the amount and cost of care carefully to

meet their cost-containment commitments. Minnesota, operating under a waiver, "prefers agency provided care since there are formal mechanisms for ensuring the quality of care provided and because program officials are nervous about potential liability in selecting family providers" (Burwell, 1986). Family members desiring to become paid caregivers must obtain prior approval of a nurse supervisor and the waiver coordinator, be supervised by a nurse, and meet all the other requirements of home-care providers.

Restrictions due to administrative structure. — A variety of structural or administrative limitations restrict programs also, both deliberately as a result of Medicaid and aging program policy choices and through the given structures and precedents already set in state governments. Variations occur depending on whether programs are administered by states directly, administered by local governments, or contracted by either of these through local agencies or vendor organizations (rather than services directly provided by government). Within these complex delivery systems, responsibility for case management must be tracked separately from actual service delivery. Finally, the means by which family caregivers are actually paid by a government or local vendor varies in amount, hourly limits, care plan, and so forth.

States Innovating With Medicaid Funding

The main constraint states face is the Medicaid restriction on the provision of Personal Care Services, which explicitly prohibits payment for provision of care to a relative. States seem to have minimized the effect of this prohibition by narrowing the definition of relative to exclude only a spouse or a parent of a minor child, using the 2176 Home and Community-Based Care waivers, and using other sources of funding for spouses when necessary because the spouse's presence was essential to deterring institutionalization.

States have tried a number of innovations regarding personal care beyond the limits of the Medicaid policy to save on institutional costs and to extend less costly alternative services. These innovative means of serving home-bound Medicaid (and potential Medicaid) clients appear to have contributed substantially to restraining the use of institutional long-term care beds. Direct payment to informal and family caregivers may or may not be evidence of states' willingness to innovate. Of the 35 states indicating that they allow payment to family caregivers, 17 have waivers and 9 of the 15 prohibiting such payment also have waivers. To what extent waivered programs may have facilitated reimbursement of relatives is not clear. Waivered programs certainly don't preclude such reimbursement, but they were not necessary in states that already had extensive personal care programs.

Many states operate home-care programs through either the state social services or aging agency, using a variety of funding sources (often including Medicaid) to deter expensive institutional placements and concomitant Medicaid expenditures. States do this through a variety of means, direct and indirect.

Directly, programs may license or hire relatives of clients (close and distant relatives). Indirectly, they may subcontract program administration to counties, Area Agencies on Aging (AAAs) or vendors. Counties and AAAs may also subcontract services to vendor agencies. Provider status decisions are not the state's responsibility. When relatives are employed by a vendor or contract agency, their relationship is not necessarily known to the contractor.

States appear to have made every effort to use Medicaid funding, particularly the Medicaid 2176 waivers, to finance these provisions whenever cost effective, both because this continues to be one of the few open-ended sources of federal revenue and because other sources of federal funding are capped by federal and by states' own revenue limitations.

Use of Non-Medicaid Resources

States are less restricted in the use of Social Services Block Grant (Title XX), Older Americans Act, and state only funding than with Medicaid funding. States are more constrained by the limited funds available from these sources than by the greater funds and extensive use of such funds allowed under Medicaid. States impose a variety of restrictions on state only sources, however, to administratively ration limited revenues.

Many states limit payment to relatives by requiring county matching dollars, thus limiting the provision to certain districts at the option of the county, as in Iowa, Wisconsin, and several other states. In New Mexico only 1 of 5 home-care demonstration sites has such a provision. Massachusetts has allowed this provision only in the pilot project in its aging agency.

Other Means by Which States Create Incentives for Caregiving Families

Other means by which state governments create incentives for caregiving families, including providing particular benefits to caregivers, were revealed in survey responses. One such benefit is special tax provisions, either tax credits or deductions. The survey responses revealed that special tax legislation has recently been considered in Hawaii, Kansas, Michigan, and Virginia. Burwell (1986) noted that tax incentive provisions have recently been adopted in Oregan, Idaho, Iowa, and Arizona.

Government has a significant interest in the well-being of the caregiver upon whom so much responsibility rests. Several states reported they provided services that could be categorized as caregiver relief. No monetary incentives per se were allowed, but do allow services that provide caregivers time off and thus presumably reduce their risks of succumbing to burnout. Although some might not distinguish this relief for the caregiver from other services performed for the client, time should be considered as an incentive for the caregiver comparable to financial incentives. Caregiver relief services of this sort specifically include respite care and day care because these are provided to take over full care and supervi-

sion of the client. It was expected at the outset that states allowing financial incentives to caregivers would also provide these time incentives because they effectively serve the same function.

Respite care was mentioned by 15 responding states, 13 of which also allow some form of monetary payments to family caregivers. These included Colorado, Florida, Hawaii, Maryland, Massachusetts, Montana, Nebraska, New Hampshire, New Mexico, Oklahoma, South Dakota Wisconsin, and Wyoming, whereas Missouri and New Jersey provide respite care, but not payment to family caregivers. Day care was mentioned by six states which permit payment to family caregivers: California, Connecticut, Illinois, Nebraska, New Hampshire, and Wyoming; and by one state which does not, New Jersey. There does seem to be some relationship between states' willingness to fund financial incentives for caregivers and services that allow them relief, or time-off.

Discussion

The findings suggested several dimensions of the current thinking that underlies community care policies. Community care appears focused on government providing only what it cannot get families to do for free, which represents a more passive model than a pro-active, entitlement policy.

The first dimension can be seen in the marginal usefulness of family care and of paying family caregivers. Several states emphasized the importance of gap-filling tasks in the total range of services they provided to the elderly. This underscores the marginal value of that little bit of targeted assistance that was believed to prevent institutionalization. For example, a respondent from Iowa noted "Sometimes the price of gas is all that prevents relatives from providing care." Another noted, "Family may provide just the few extra things or extra time needed." In addition, "Cash can provide the family extra money needed for client supplies (e.g., diapers, medicine) or expenses." As a New Mexico respondent noted, the added cash can be critical, "since all eligible clients have less than $433 a month in income in our state." The value of discretionary resources in the hands of caring families was widely noted. Payments are important "to support the existing service when the family is in danger of giving up."

To implement this gap-filling strategy, some jurisdictions make family payments available on a strictly by exception basis after it is determined that payments will make the marginal difference. All emphasized the principle of not supplanting other sources of support and most emphasized not making payments for existing levels of unpaid care. As greater inconsistencies in their policy emerged, larger, more complex programs have gradually had to formalize the criteria for use of family payments.

A second dimension of the residual model is revealed by the confusion surrounding the relevance of income eligibility and alleviation of poverty in the determination of eligibility. Is government responsible in some way for all elderly persons or only poor elderly persons? Usually some notion of client vulnerability precedes the criteria of income. The issues of client vulnerability are particularly complex when either or both client and caregiver are impoverished.

Litwak (1985) addressed the relevance of poverty by distinguishing the greater needs of poor families. He cautioned policy makers against reducing "the amount of subsidy when the kin supply normal kin help. To do so would be to force the very poor into an isolated marital household structure that is not suitable in a modern society, rather than to support the modified extended one that is suitable." He noted that the poor frail elderly tended to use friends and neighbors far less than the non-poor and, consequently, relied even more on primary-group members (who were also poor). Needs tests present a dilemma for them, because they force the poor to choose between receiving household services from government subsidies or normal kin services from relatives. The provision of primary-group services to (and by) the poor demands long-term commitments and thus greater sacrifice than for wealthier groups (Litwak, 1985).

Some states have recognized the penalty paid by poor, related caregivers by either clearly targeting additional assistance to them or requiring caregivers to apply for welfare. The latter requirement, however, may actually discourage use of the provision if welfare is seen as a stigmatizing program. Yet even those few states with relatively generous payments (California, Michigan, and New York) would not be likely to secure a family caregiver who had clearly better employment options. Medicaid, low-cost meals, and shopping services are prototypes, but limited to the ill poor, and much could be gained by extending such policies to the well poor, too. Policies are apparently constrained by the nation's current reluctance to expand public services, except incrementally.

The values of residualism in the implementation of this policy continue to raise nagging and discomfitting questions about access, equity, and efficiency of the whole system of community-based care in the United States. Without further resources, states are unable to do more than gap-fill and will continue to define the gaps as being only as large as they have the resources to fill. Paid family caregiving continues to provide vital links in the nation's safety net, yet without consistency in state practices the pivotal role of caregivers remains nearly invisible and, surely, misunderstood.

Conclusions

The major finding of the study is that 70% of the 50 states and territories responding to the survey, have arrangements which allow paid family caregiving. These programs have developed from various sources. Some have emerged from other programs, others have been legislated, and some probably have developed from innovative arrangements of existing services to apply available resources to assist families who could provide home-care.

A second major finding addresses the potential for expansion and concern for abuses of state-wide paid family caregiving programs. Most states have developed a variety of limits on paid family caregiving programs to temper both woodwork effects (limits to contain the growth) and to preclude substitution effects (payments for existing care). Although three states (California, New York, and Michigan) reported rather large programs which had clearly expanded availability of benefits, all had devised screening methods to contain eligibility.

States revealed wide variation in reasons why they permit or do not permit home-care payment to relatives. They have also used a broad range of resources, such as Medicaid, other federal funds, and state funds, to finance family care provisions. Most programs have been rather narrow in terms of eligibility, scope, means of payment, and other criteria, applying these on a limited basis, but with a tremendous amount of variation in actual practice and rationale.

In states with no official policy, in those that have adopted official policies, and in those that have rejected policies, uncertainty remains whether payment to relatives providing home-care is cost effective. For example, Ohio noted its intent "to extend the duration and increase the intensity of informal care, but targeting is tough." Ohio has endeavored "to deter nursing home placement to save public money, but it is very difficult [in financing home-care services] not to spend more than is saved." This is largely because, as was frequently noted, relatives already were providing the major proportion of services to elderly people and the provision of payment would simply have supplanted existing effort. Yet the states that have adopted such policies base their rationale on cost effectiveness.

The findings do not permit an assessment of either the results or the impacts of specific programs, or the optimal policy to create incentives for families to provide home-care. A great deal more understanding of the motivations and marginal vulnerability of individual caregivers, as well as those of states' individual caregiving systems, would enhance the grasp of the utility and the effects of this policy choice.

Yet it is significant that at least 35 states permit payment of relatives to provide home-care under some circumstances. This is far more prevalent than was expected and surely more than generally known by the public. This reality itself is a window of opportunity for advocates of family caregiving and to advocates of positive incentives.

References

Arling, G., & McAuley, W. J. (1983). The feasibility of public payments to family caregiving. *The Gerontologist, 23,* 300–306.

Brody, E. M. (1981). Women in the middle and family help to older people. *The Gerontologist, 21,* 471–479.

Brody, E. M. (1985). Parent care as a normative family stress. *The Gerontologist, 25,* 19–29.

Burwell, B. O. (1986). *Shared obligations: Public policy influences on family care for the elderly.* SysteMetrics, Inc: Health Care Financing Administration.

Cantor, M. H. (1983). Strain among caregivers: A study of experience in the United States. *The Gerontologist, 23,* 597–604.

Crossman, L., London, C., & Barry, C. (1981). Older women caring for disabled spouses: A model for supportive services. *The Gerontologist, 21,* 464–470.

Horowitz, A., & Shindlemen, L. W. (1983). Social and economic incentives for family caregivers. *Health Care Financing Review, 5,* 25–33.

Litwak, E. (1985). *Helping the elderly: The complementary roles of informal networks and formal systems.* New York: The Guilford Press.

McAuley, W. J., & Blieszner, R. (1985). Selection of long-term care arrangements by older community residents. *The Gerontologist, 25,* 188–193.

Ruther, M., Pagan-Berlucchi, A., Rinkle, V., & Yanek, J. (1986, June). *Medicaid Medicare Data Book 1984.* Department of Health and Human Services, Health Care Finance Administration. [Unpublished].

Shanas, E. (1979). Social myth as hypothesis: The case of family relations of older people. *The Gerontologist, 23,* 504–611.

Sussman, M. B. (1977, January). *Social and economic supports and family environments for the elderly.* Final report to the Administration on Aging. Washington, DC: Department of Health and Human Services, Office of Human Development Services.

U.S. Senate Committee on Finance. (1983, November). *Staff data and materials related to Medicaid and long-term care.* Washington, DC: U.S. Government Printing Office.

Wagner, D., & Gleeson, D. (1980, November). *Late life frailty and social networks.* Paper presented at the 33rd Annual Gerontological Society Conference, San Diego.

Weissert, W. (1986). Hard choices: Targeting long-term care to the "at risk" aged. *Journal of Health Politics, Policy and Law, 11,* 463–482.

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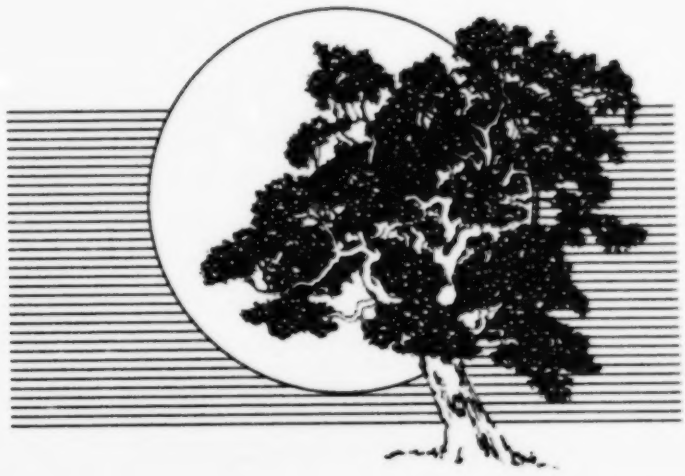
GERIATRIC TRAINING CURRICULUM FOR PUBLIC HEALTH PROFESSIONALS

CONTINUUM OF CARE SERVICES FOR OLDER ADULTS

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES • Public Health Service • Health Resources and Services Administration



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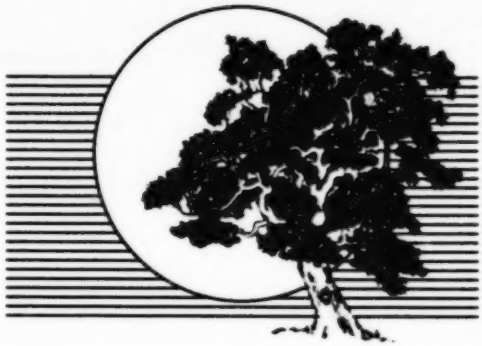

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Joel A. Todd
Project Director

Shelli B. Rossman
Project Manager

PREFACE

The Geriatric Training Curriculum for Public Health Professionals was developed by Technical Resources, Inc. (TRI) for the Bureau of Health Professions, Health Resources and Services Administration, Public Health Service, U.S. Department of Health and Human Services. The curriculum has been designed for mid- and senior-level practicing public health professionals, primarily employed in state and local Departments of Public Health. The training materials have been designed to permit these professionals, as well as representatives of aging-related networks, to broaden their understanding of aging and the needs of the older adult so that they may serve as geriatric/gerontologic resources in their communities.

It is the intent of the Bureau and TRI that training sessions conducted with these materials be facilitated by persons who are experienced trainers, as well as content experts in the areas for which they provide training. The curriculum is fully self-contained. It comprises all the written materials and instructions necessary to prepare and conduct this training. In developing these materials, we have anticipated that facilitators will want to present updated information to remain current in the field; we have included suggestions for enhancing the topical relevance of the training pieces, together with suggestions for where to obtain state-of-the-art data.

CURRICULUM MATERIALS

The Geriatric Training Curriculum is comprised of five modules:

- Aging: Demography, Biology, and Epidemiology.
- Psychosocial Issues Affecting Older Adults and Their Caregivers.
- Financing the Health Care of Older Adults.
- Continuum of Care Services for Older Adults.
- Health Promotion for Older Adults.

Each module can be presented independent of the others. However, if the curriculum is utilized in its entirety, it is recommended that the aforementioned order be preserved to permit trainees to incorporate a foundation in concepts basic to an understanding of aging, as well to clarify

their own values, prior to examining the complexities of financing, service delivery, and health promotion/disease prevention issues.

All of the modules have been organized utilizing a seven-section format, as detailed below:

- **Introduction** -- This section presents a brief narrative describing the purpose of the module, together with information for the instructor, including a general description of the organization of the remainder of the module and some generic recommendations for training.

- **Overview** -- This section presents a schematic outline of each training topic, including time required for the didactic session and any interactive exercises, training objectives, listings of relevant overheads and handouts, and indication of special preparation requirements, if any. This section concludes with a bibliography that constitutes the literature referenced within the module.

- **Training Content** -- Presented in two-column format, this section contains the substantive content that serves as a training script, together with strategic guidance for conducting training activities, such as interactive exercises.

- **Overheads** -- This section contains hard copies from which transparencies or slides can be produced. In addition, this section may be reproduced for distribution to trainees as an aid in note taking.

- **Handouts** -- This section contains master copies of the handouts, which have been developed to support and enrich the training experience. Typically, these materials either (i) present current data or (ii) form the basis for interactive training activities.

- **Resources** -- This section presents pertinent information on relevant Federal agencies, private organizations, and media resources from which up-to-date information can be obtained. Facilitators should contact appropriate resources to update the training content for each session, as necessary. The section may also be reproduced in hard copy for distribution to training participants.

- **Readings** -- Each module contains relevant readings that should be reviewed by the facilitator in advance of training. Such materials may be duplicated for distribution to training participants, prior to, or at the conclusion of, the training session.

As a result of a needs assessment that was performed prior to undertaking the design of this material, the curriculum developers were cognizant of public health professionals' interests in the geriatric arena, as well as their concerns that training be pragmatic and practicable, given existing and projected constraints on personnel, time, budget lines, and other crucial resource considerations. The use of these materials will permit the skilled trainer to meet the needs of public health department personnel for aging-related information through pre- or in-service training in any or all

of the topics subsumed by this curriculum. TRI has employed a modular approach to facilitate training sessions of short duration that may be (i) conducted as a series of brief sessions, such as lunchtime seminars, over a period of time, or (ii) merged together to form half- or full-day intensive training workshops. Further, since these materials represent a fully-contained training package, this curriculum can be presented at minimal cost to the sponsoring organization, but at great benefit to public health professionals, who have expressed interest in the selected issues.

DEVELOPMENT OF THE CURRICULUM

The TRI project staff began the research for the curriculum during the Fall of 1987. Early project activities included:

A. Project Start-Up

- Discussions with Ronald B. Merrill, M.H.A., Government Project Officer, to refine the strategy that would serve as the blueprint for action and day-to-day progress. A six-pronged strategy for analysis of geriatric education resources was implemented as detailed below.

B. Phase One: Strategy

- Educational Efforts of Professional Associations and Organizations. Discussions were held with associations that address issues concerning the elderly to ascertain the extent and nature of programs under their domain that could be applied to satisfy the training needs of public health professionals. The following organizations were contacted:

  - American Association of Retired Persons (AARP)
  - American Medical Association (AMA)
  - American Geriatric Society (AGS)
  - Association for Gerontology in Higher Education (AGHE)
  - American Bar Association (ABA)
  - National Council on Aging (NCOA)
  - Gerontological Society of America (GSA)
  - National Senior Citizens Law Center
  - American Public Health Association (APHA)
  - Association of Schools of Public Health
  - Association of State and Territorial Health Officials (ASTHO)
  - National Association of County Health Officials (NACHO)
  - U.S. Conference of Local Health Officers (USCLO).

- Geriatric/Gerontologic Curricula in Schools of Public Health. An assessment of geriatric/gerontologic curricula in schools of public health was undertaken. In 1985, the Association of the Schools of Public Health (ASPH) compiled a comprehensive list of geriatric and gerontologic courses offered at all twenty-three school of public health in the U.S. TRI used this report, *Gerontology Programs and Curricula in U.S. Schools of Public*

Health (Judith H. Magee, June 1985) to analyze training opportunities and content areas offered to students of public health. TRI randomly contacted approximately half of these institutions if they had indicated plans for curriculum expansion during the 1985 ASPH Survey.

Content analysis of the various curricula found that many of the schools of public health have developed discrete courses devoted to health care of the aged, although some schools merely incorporate gerontologic/geriatric material into existing courses.

- Geriatric Education Center Resources. Analysis of the training offered by the Bureau of Health Professions-funded Geriatric Education Centers (GECs) nationwide, permitted TRI to identify a number of existing curriculum modules and/or bibiographic resource listings that were obtained and assessed for relevance to the target training audience. In all, twenty-five curriculum modules were subjected to content analysis, focusing on the target audience for the information, scope of the course offering, topics subsumed, and training techniques employed.

- Review of Literature. Geriatric/gerontologic and education/training literature pertinent to public health professionals was reviewed. The TRI staff performed an exhaustive review of the following journals from 1985 to the present:

  - *American Journal of Public Health*
  - *Geriatrics*
  - *Gerontology and Geriatrics Education*
  - *Health Education*
  - *Health Education Quarterly*
  - *The Gerontologist*.

  In addition, numerous monographs and relevant articles from other health-related journals were also reviewed. A working bibliography of materials reviewed at that time has been included at the end of this section.

- Preliminary Needs Assessment. TRI contacted public health professionals whose agencies serve elderly populations. State, regional, county, and urban health department personnel from jurisdictions in California, Virginia, New York City, and the District of Columbia provided information on their current levels of services, as well as the training needs of departmental staff.

- Staff Development Activities. TRI project staff attended several conferences and symposia, including:

  - The Gerontological Society of America Annual Meeting
  - The Ohio Valley Appalachia Region (OVAR) One-Week Summer Intensive
  - The Amerian Society on Agency Annual Conference.

- Advisory Panel. An advisory group, comprised of national experts representing the professions of public health, medicine, epidemiology, ethics and law, health education, health administration, and geriatrics/gerontology, was empaneled. The Advisory Panel members were drawn from universities, public health departments at state and local levels, Geriatric Education Centers, and relevant associations. Representatives of appropriate Federal agencies served as resource representatives, augmenting the considerable expertise

of the Advisory Panel membership. A two-day meeting was convened to focus curriculum development through selection of topics for inclusion in the training and discussion of recommended training resources and approaches. The meeting was attended by:

Panel Members

- Phil Weiler, M.D., M.P.H., Panel Chairperson
  Department of Community Health
  School of Medicine
  University of California at Davis

- John Arradondo, M.D., M.P.H., Director
  Department of Health and Human Services
  Houston, Texas

- Robert Butler, M.D., Chairman
  Ritter Department of Geriatrics and Adult Development
  Mt. Sinai School of Medicine

- William Carter, Ph.D.
  University of Washington
  School of Public Health

- J. Richard Connelly, Ph.D.
  Director of Gerontology
  University of Utah

- Rose Dobrof, D.S.W.
  Hunter/Mt. Sinai Geriatric Education Center
  Brookdale Center on Aging of Hunter College, CUNY

- Mary Ellis, R.Ph., M.P.A.
  Commission of Health
  State of Iowa

- Daniel Friedman, Ph.D.
  Director, Health Statistics and Research
  Massachusetts Department of Public Health

- Pearl German, Ph.D.
  Department of Health Policy and Management
  Johns Hopkins University
  School of Hygiene and Public Health

- Tom Hickey, Ph.D.
  Community Health Program
  Health Gerontology
  School of Public Health
  University of Michigan

- Jane Johnston
  Director of Training
  Human Resources
  American Association of Retired Persons

- Robert Kane, M.D., Dean
  School of Public Health
  University of Minnesota

- Marshall B. Kapp, J.D., M.P.H.
  Wright State University
  School of Medicine

- Bernice Parlak, M.S.W.
  Geriatric Education Center of Pennsylvania
  Temple University Institute on Aging

Resource Representatives

- Ronald B. Merrill, M.H.A.
  Public Health Service Project Officer
  Division of Associated and Dental Health Professions

- William D. Clark, M.A.
  Social Science Research Analyst
  Division of Long-Term Care Experimentation
  Office of Research Demonstrationn (ORD)/HCFA

- Marsha Goodwin, R.N., M.S.N., M.A.
  Chief, Education and Training for Geriatrics and Extended Care
  Veterans Administration

- Evan Hadley, M.D.
  Chief, Geriatrics Branch
  National Institute on Aging

- William Koenig, M.P.A.
  Deputy Chief
  Associate Health Professions Branch
  Division of Associated and Dental Health Professions

- Thomas L. Louden, D.D.S., Director
  Division of Associated and Dental Health Professions

- Marsha Ory, Ph.D.
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- **Joel Ann Todd, M.A.**
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- **Shelli B. Rossman, M.A.**
  Project Manager

- **Rosalind Brannigan, M.P.H.**
  Research Associate

- **Peter J. Pizzolongo, M.S.**
  Senior Associate

C. **Phase Two: Targeted Needs Assessment**

- Following the Advisory Panel meeting, TRI designed and implemented a strategy for a needs assessment and a discussion guide.

- TRI staff conducted telephone conversations at the state and county, as well as city, level with staff of public health departments in 11 states and the District of Columbia. Contacts included health commissioners; epidemiologists; health department training specialists; physicians and nurses operating geriatric clinics; and chiefs of such administrative offices as long-term care, health planning and development, health promotion, community and rural health, and chronic diseases. In addition, site visits were made to several public health departments at both the state and local levels in Maryland to meet with cognizant personnel and actually obtain a first-hand exposure to daily routines. TRI staff also spoke with representatives of Offices on Aging at both state and local levels, by phone and in person, to determine their perspectives on the geriatric training needs of public health department personnel. Needs assessment respondents described a number of activities undertaken by public health, including assessment and treatment services provided by health centers and specialized clinics, adolescent pregnancy prevention programs, home health programs, geriatric programs, and mental health and addiction programs.

- In general, respondents who had oversight responsibilities for on-going geriatric programs/services were most able to pinpoint training needs or issues they felt required further attention. Training areas identified included information about effective health promotion programs, Medicare/Medicaid/Catastrophic care coverage, local linkages and continuum of care issues, nutrition, pharmacologic issues, and health education for fitness/exercise programs.

D. **Phase Three: Curriculum Design**

- TRI, in consultation with the Government Project Officer, developed a curriculum outline that blended the topics suggested by the Advisory Panel with those that emerged as a result of the needs assessment. Particular attention was paid to selecting issues that would not only attract professionals in public health departments, but also those in related agencies, such as Offices on Aging.

- The first draft of the Geriatric Training Curriculum was pilot tested in July 1989 in a three-day-intensive Geriatric Training Institute under the auspices of the South Texas Geriatric Education Center in San Antonio, Texas. Eighteen participants, representing the Texas Department of Public Health at state and regional levels or from in-state area agencies on aging, attended the pilot test.

- Two activities were incorporated in the pilot strategy to enhance curriculum development:

  - The modules were implemented in an actual training setting by facilitators who had not been involved in the curriculum development process. This approach was used to obtain an objective assessment of whether the packages were truly self-contained and user friendly. The facilitators, who are listed below, were given the opportunity to critique content and form of all materials.

  - Pilot test participants completed evaluations of each training session. A sample of the evaluation instrument is presented in Appendix A.

Geriatric Training Institute Faculty

-- Michele J. Saunders, D.M.D., M.S., M.P.H.
Director, South Texas Geriataric Education Center

Sessions: Demographics, Biology of Aging, Continuum of Care, Health Promotion

-- Robert Oseasohn, M.D.
Professor and Associate Dean
School of Public Health at Houston
MPH Program at San Antonio

Session: Epidemiology

-- Mary Ann Matteson, Ph.D.
Assistant Professor
School of Nursing
University of Texas Health Science Center at San Antonio

Session: Psychosocial

-- David Warner, Ph.D.
LBJ School of Public Affairs

Session: Financing

-- Ruth A. Freiburger, M.A.
Education.Specialist
South Texas Geriatric Education Center

Session: Health Promotion

-- Carolyn E. Marshall, M.P.H.
Community Education Coordinator
South Texas Geriatric Education Center

Session: Health Promotion

-- Myron Shank, M.D.
Division of Diabetes
Department of Medicine

Session: Health Promotion

- Based upon the critiques of the facilitators, the evaluations of the participants, and the observations of the TRI project staff and Government Project Officer that were recorded during the pilot test, the initial draft curriculum was revised and strengthened.

- Subsequently, the modules were reviewed by Advisory Panel members, whose critiques, together with that of the Government Project Officer, during late Summer, 1989, guided the final revision of all materials.

TIPS FOR FACILITATORS

To ensure effective training sessions designed to meet the needs of participants, facilitators should address the following issues.

Sensitivity of Language

The language used to develop programs for older adults is an important part of helping individuals empower themselves to deal with the aging process. Language is a symbol of sensitivity to a group's strengths, needs, and interests. Therefore, facilitators must select words carefully when conducting training.

Project staff have chosen the words "Black" and "Hispanic" to identify members of these racial/ethnic groups (consistent with the terminology presented in National Center for Health Statistics data and with the Centers for Disease Control classifications). However, identifiers most appropriate for the region in which training is conducted (e.g., "African-American," "Latino," "Chicano") should be used during the training session. Facilitators should contact racial/ethnic group leaders from the trainees' jurisdiction(s) prior to presenting the workshops to ensure that the appropriate identifiers are used.

Similarly, the term "elderly" has a long history of referring to adults, aged 65 and older. More recently, demographic shifts have underscored the heterogeneity of this group, leading to the recognition that at least two sub-sets exist within the 65+ cohort: the "young-old" and the "old-old" (who typically are frailer individuals). Many of the young-old are wary of the designation of "elderly" since they perceive it as conferring a status of infirmity to which they do not wish to lay claim. "Elderly" is still linguistically viable, but one should be alert to an audience's comfort and responsiveness when using terms that may be value laden.

In general, it is important not to stereotype individuals when discussing aging-related issues. Urban dwellers are not necessarily more socially conscious, modern, and formally educated than rural dwellers. Individuals who fall within the same age group may not share anything else in common except chronological age. Training sessions can, and should, be strengthened by discussing stereotypes and prejudices with representatives of appropriate groups, at the local level. Information about the manifestations of such attitudes and behaviors in the trainees' jurisdiction(s) can be integrated into the training content where appropriate.

Needs Assessment

Prior to scheduling and conducting training sessions, facilitators should assess the knowledge, skill, and attitude training needs of participants. Using surveys, pre-tests, and/or interviews, the specific needs of participants can be identified. Facilitators can then schedule sessions appropriately and modify training outlines, as necessary, to match the strengths, interests, and needs of the trainees.

An advantage of the modular approach of this Geriatric Training Curriculum is that it not only contains suggestions for optional activities, but also has an inherent flexibility that permits facilitators to add to, delete from, or restructure the existing material to tailor it to the specific needs of a select group.

Class Size

This curriculum was designed to provide for interactive training. Therefore, a class size of 15 to 30 participants would be optimal.

Training Strategies

- Lecture/Discussion -- Facilitators should familiarize themselves sufficiently with the training outline scripts to avoid reading from the script during the training session. Add anecdotes pertinent to the trainees' jurisdiction(s) to strengthen these segments; the inclusion of humor in the form of cartoons or tasteful jokes is not only a good icebreaker, but also creates a positive climate for training. If time permits, encourage participants to ask questions during the lecture segments, or respond to questions at the conclusion of these segments.

- Overheads -- Facilitators should talk from the overheads and not read them verbatim. The right column in the training outline provides information relevant to each overhead. The use of a pointer during discussion of charts and graphs can greatly enhance the impact of the data.

- Brainstorming -- This training strategy allows participants to identify many responses to a question (e.g., "What do you think about the Catastrophic Care Coverage Act of 1988?"). Brainstorming is an appropriate strategy when a question has many "right answers" or possibly no "right answers" (an open-ended question). It is not appropriate for questions that have only one or a few "right answers." Facilitators should ask participants to respond to brainstorming questions without commenting negatively on the relative merits of each response; although information that is factually incorrect should be accurately restated so as to clarify misinformation and prevent its repetition.

- Values Clarification -- This strategy is used in the Psychosocial Issues module. Its purpose is to help trainees recognize how their own attitudes can influence decision making and planning, as well as treatment and care. This type of strategy works best when used in training situations of low threat, in which an individual can shift his or her attitudes without feeling defensive or threatened. Facilitators should approach this activity as an "off-the-record" discussion in as "judgment-free" an atmosphere as possible. The training outline for the Psychosocial Issues module includes objective information for facilitators to share with trainees at the conclusion of the values clarification activity.

- Group Discussions -- Most of the modules include group discussion activities. These activities are designed to tailor the lecture information to the needs in the trainees' jurisdiction(s). Each discussion activity is based on a series of written questions to which participants respond individually and/or within their groups. Some of the activities lead to a "debriefing" report from each group. The training outline provides questions for facilitating large group discussions at the conclusion of the small group activities.

The Geriatric Training Curriculum for Public Health Professionals can be a useful tool for increasing knowledge of geriatric/gerontologic issues and for developing the competencies to deal with older adults. The Bureau of Health Professions and TRI hope that training providers can incorporate this curriculum with other quality programs.

BIBLIOGRAPHY

1. Abramowitz, M. "Age and Economics--Should Expensive Procedures Be Limited on the Basis of Age?" *Washington Post*, January 26, 1988.

2. Ahmed, S.M., Kraft, I.A., Porter, D.M. "Attitudes of Different Professional Groups Toward Geriatric Patients," *Gerontology and Geriatrics Education*, 6(4):77-86, Summer 1986.

3. The Alzheimers's Disease Center and National Institute on Aging. *Q&A: Alzheimer's Disease*, NIH Pub. No. 85-1646, May 1985.

4. American Association of Retired Persons. *A Profile of Older Americans: 1985*, Washington, DC, 1985.

5. Applebaum, R.A. and Wilson, N.L. "Training Needs for Providing Case Management for the Long Term Care Client: Lessons from the National Channeling Demonstration," *The Gerontologist*, 28(2):172-176, 1988.

6. Arie, T.H.D. "Education in the Care of the Elderly," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):492-500, July-August 1985.

7. Austin, D.R. "Attitudes Toward Old Age: A Hierarchical Study," *The Gerontologist*, 25(4):431-434, 1985.

8. Author Unknown. "Long Term Care Program Promised," *The Nation's Health*, March 1988.

9. Author Unknown. "Medicare's Fiscal Dilemma," *The Urban Institute Policy and Research Report*, 18(1), Winter 1988.

10. Author Unknown. "State Health Reports," *The Nation's Health*, p. 14, January 1988.

11. Bass, S.A. "Symposium on Tomorrow's Able Elderly: Implications for Policy and Practice - Introduction," *The Gerontologist*, 27(4):403-404, 1987.

12. Bender, C. and Hart, J.P. "A Model for Health Promotion for the Rural Elderly," *The Gerontologist*, 27(2):139-142, 1987.

13. Berk, M.L. and Wilensky, G.R. "Health Care of the Poor Elderly: Supplementing Medicare," *The Gerontologist*, 25(3):311-314, 1985.

14. Berkman, L.F. "The Assessment of Social Networks and Social Support in the Elderly," *Journal of the American Geriatrics Society*, 31(12):743-749, December 1983.

15. Berman, S., Delancey, N., Gallagher, D., Atkins, P., and Graeber, M.P. "Respite Care: A Partnership Between a Veterans Administration Nursing Home and Families to Care for Frail Elders at Home," *The Gerontologist*, 27(5):581-584, 1987.

16. Berry, G.L, Smyer, M.A., and Lago, D. "State-Level Pharmaceutical Assistance Programs for the Elderly: A National Survey," *American Journal of Public Health*, 78(2), February 1988.

17. Besdine, R. "The Educational Utility of Comprehensive Functional Assessment in the Elderly," *Journal of the American Geriatrics Society*, 31(11):651-656, November 1983.

18. Besdine, R.W. *Observations on Geriatric Medicine*, DHEW Pub. No. (NIH) 79-162, National Institute on Aging, 1979.

19. Binstock, R.H. "Title III of the Older Americans Act: An Analysis and Proposal for the 1987 Reauthorization," *The Gerontologist*, 27(3):259-265, 1987.

20. Blazer, D. "Home Health Care: House Calls Revisited," *American Journal of Public Health*, 78(3):238-239, March 1988.

21. Blumenfield, S. "Gerontology Journal Club: A Continuing Education Modality for Experienced Social Workers in an Acute Hospital Setting," *The Gerontologist*, 25(1):11-14, 1985.

22. Branch, L.G., Wetle, T.L, Scherr, P.A., Cook, N.R., et al. "A Prospective Study of Incident Comprehensive Medical Home Care Use Among the Elderly," *American Journal of Public Health*, 78(3):255, March 1988.

23. Brody, S.J. "Strategic Planning: The Catastrophic Approach," *The Gerontologist*, 27(2):131-138, 1987.

24. Buchanan, J. and Santos, J.F. "A Report from an Interdisciplinary Conference on Mental Health and Aging," *Gerontology and Geriatrics Education*, 7(1):1-3, Fall 1986.

25. Burroughs, P., Young, J.E., Silverman, M., Ricci, E., Shore, B.K., Lago, D. "The Development and Evaluation of Training Standards for the Aging Network and Academia: II Summary of Project Products and the Process of Their Validation," *Gerontology and Geriatrics Education*, 7(2):47-54, Winter 1986.

26. Calkins, E. "Residency Training in Geriatric Medicine - 1984," *Symposium on the Geriatric Medical Education Imperative, Bulletin of the New York Academy of Medicine*, 61(6):534-, July-August 1985.

27. Capitman, J.A. "Community-Based Long-Term Care Models, Target Groups and Impacts on Service Use," *The Gerontologist*, 26(4):389-397, 1986.

28. Capitman, J.A., Arling, G., and Bowling, Cindi. "Public and Private Costs of Long-Term Care for Nursing Home Pre-Admission Screening Program Participants," *The Gerontologist*, 27(6):780-787, 1987.

29. Capitman, J.A., Haskins, B., and Bernstein, J. "Case Management Approaches in Coordinated Community-Oriented Long-Term Care Demonstrations," *The Gerontologist*, 26(4):398-404, 1986.

30. Castro, J. "Critical Condition," *Time*, p. 42, February 1, 1988.

31. Champlin, L. "Long-Term Care: Protecting the Elderly From Going Broke," *Geriatrics*, 43(4):96-102, 1988.

32. Chandler, J.T., Rachal, J.R., and Kazelskis, R. "Attitudes of Long-Term Care Nursing Personnel Toward the Elderly," *The Gerontologist*, 26(5):551-555, 1986.

33. Chappell, N.L. and Blandford, A.A. "Adult Day Care and Medical and Hospital Claims," *The Gerontologist*, 27(6):773-779, 1987.

34. Chen, Y-P. "Making Assets Out of Tomorrow's Elderly," *The Gerontologist*, 24(4):410-416, 1987.

35. Cherry, D.L. and Rafkins, M.J. "Adapting Day Care to the Needs of Adults with Dementia," *The Gerontologist*, 28(1):116-120, 1988.

36. Clark, P.G. "The Social Allocation of Health Care Resources: Ethical Dilemmas in Age-Group Competition," *The Gerontologist*, 25(2):119-125, 1985.

37. Cohen, M.A., Tell, E.J., Greenberg, J.N., and Wallack, S.S. "The Financial Capacity of the Elderly to Insure for Long-Term Care," *The Gerontologist*, 27(4):494-502, 1987.

38. Committee on Leadership for Academic Geriatric Medicine. "Report of the Institute of Medicine: Academic Geriatrics for the Year 2000," *Journal of the American Geriatrics Society*, 35(8):773-791, August 1987.

39. Cook, F.L. "A Symposium on Measuring Hardship Among Older Americans During the First Four Years of the Reagan Administration - Introduction," *The Gerontologist*, 26(1):25-26, 1986.

40. Cook, F.L. and Kramek, L.M. "Measuring Economic Hardship Among Older Americans," *The Gerontologist*, 26(1):38-47, 1986.

41. Doka, K.J. and Smith-Fraser, D. "The Goals of Master-level Gerontological Students: An Institutional Study," *Gerontology and Geriatrics*, 7(1)75-83, Fall 1986.

42. Doress, P.B. and Siegal, D.L. *Ourselves. Growing Older. Women Aging with Knowledge and Power*, Simon and Schuster, New York, 1987.

44. Drinka, T. and Ray, R.O. "An Investigation of Power in an Interdisciplinary Health Care Team," *Gerontology and Geriatrics Education*, 6(3):43-53, Spring 1986.

45. Eisdorfer, C. "Educating for Caring," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):573-579, July-August 1985.

46. Elster, S.K. "Introductory Remarks," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):469-470, July-August 1985.

47. Falcone, A. "Comprehensive Functional Assessment as an Administrative Tool," *Journal of the American Geriatrics Society*, 31(11):642-650, November 1983.

48. Famiglietti, R.A. "Meeting an Emergent Need in Curriculum Development: Aging and Developmental Disabilities," *Gerontology and Geriatrics Education*, 6(1):25-35, Fall 1985.

49. Fanelli, M.T. and Abernethy, M.M. "A Nutritional Questionnaire for Older Adults," *The Gerontologist*, 26(2):192-197, 1986.

50. Ford, A.B. "Looking After the Old Folks," *American Journal of Public Health*, 77(12):1499-1510, December 1987.

51. Freedman, M.L. "Medical Education in Geriatrics: Ethical and Social Concerns," *Symposium the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):501-505, July-August 1985.

52. Frongillo, E.A., Jr., Williamson, D.F., Roe, D., and Scholes, J. "Continuance of Elderly on Home-Delivered Meals Programs," *American Journal of Public Health*, 77(9), September 1987.

53. Geriatrics Panel and Discussion. "Practical Considerations in Managing Alzheimer's Disease: I," *Geriatrics*, 42(9):78-98, September 1987.

54. Geriatrics Panel and Discussion. "Practical Considerations in Managing Alzheimer's Disease: II," *Geriatrics*, 42(10):55-65, October 1987.

55. Gibbs, N.R. "Grays on the Go," *Time*, p. 66, February 22, 1988.

56. Granick, S. "Psychologic Assessment Technology for Geriatric Practice," *Journal of the American Geriatrics Society*, 31(12):728-742, December 1983.

57. Greene, M.G., Hoffman, S., Charon, R., and Adelman, R. "Psychosocial Concerns in the Medical Encounter: A Comparison of the Interactions of Doctors with Their Old and Young Patients," *The Gerontologist*, 27(2):164-168, 1987.

58. Grover, S., M.D., et al. "Impact of Medicare on Early Cancer Detection in the Elderly," *American Journal of Public Health*, 78(1):58-60, January 1988.

59. Gruca, J.A. "Three Perspectives on Curriculum Development in Gerontology," *Gerontology and Geriatrics Education*, 6(3):65-72, Spring 1986.

60. Hagestad, G.O. "Able Elderly in the Family Context: Changes, Chances, and Challenges," *The Gerontologist*, 27(4):417-422, 1987.

61. Harel, Z., Noelker, L., and Blake, B.F. "Comprehensive Services for the Aged: Theoretical and Empirical Perspectives," *The Gerontologist*, 25(6):644-649, 1985.

62. Havlik, R.J., Liu, B.M., Kovar, M.G., et al. "Health Statistics on Older Persons," National Center on Health Statistics, p. 1-77, 1986.

63. Hay, J. and Ernst, R. "The Economic Costs of Alzheimer's Disease," *American Journal of Public Health*, 77(9)1169-1175, September 1987.

64. Henig, R. "Can -or Should- We Conquer Aging," *Washington Post Health*, p. 10, November 24, 1987.

65. Henninger, J.L., Henninger, W.B., Morse, C.K., and Zweigenhaft, R.L. "Physicians' Awareness of Services for the Elderly," *Gerontology and Geriatrics Education*, 7(2):21-28, Winter 1986.

66. Hesse, K.A., Levkoff, S.E., Campion, E.W. "House Officers' Knowledge of Geriatric Health Policy: Are the Gatekeepers Learning the Rules?," *The Gerontologist*, 28(2):233-236, 1988.

67. Hickey, T. *Health and Aging*, Wadsworth, Inc., Belmont, CA, 1980.

68. Higbie, L. "To Understand the Aging Process: The Baltimore Longitudinal Study of the National Institute on Aging," NIH Pub. No. 80-134, August 1980.

69. Hing, E. *Use of Nursing Homes by the Elderly: Preliminary Data from the 1985 National Nursing Home Survey*, National Center for Health Statistics, No. 135. DHHS Pub. No. (PHS) 87-1200, Public Health Service, Hyattsville, MD.

70. Hofland, B.F., Kirby, William, T., Hennessy, M., Lawler, T., and Santos, J.F. "A National Media Awards Competition in Gerontology and Geriatrics," *Gerontology and Geriatrics Education*, 7(1):5-13, Fall 1986.

71. Hofland, B.F., Smyer, M.A., Wetle, T., Walter, Adrian R. "Linking Research and Practice: The Fellowship Program in Applied Gerontology," *The Gerontologist*, 27(1):39-45, 1987.

72. Hudson, R.B. "Tomorrow's Able Elders: Implications for the State," *The Gerontologist*, 24(4):405-409, 1987.

73. Johnson, J.E., III. "Geriatrics and Medical Education - Initiatives of the Association of American Medical Colleges," *`Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):484-491, July-August 1985.

74. Kahn, R.L. "Productive Behavior: Assessment, Determinants, and Effects," *Journal of the American Geriatrics Society*, 31(12):750-757, December 1983.

75. Kane, R., Solomon, D., Beck, J., Keeler, E., and Kane, R. "The Future Need for Geriatric Manpower in the United States," *The New England Journal of Medicine*, 302(24):1327-1332, June 1980.

76. Kane, R.A., and Kane, R.L. *Assessing the Elderly: A Practical Guide to Measurement*, Lexington, Mass: Lexington Books, 1981.

77. Kapp, M. "Interprofessional Relationships in Geriatrics: Ethical and Legal Considerations," *The Gerontologist*, 27(5):547-552, 1987.

78. Karuza, J., Jr., Calkins, E., Duffey, J., and Feather, J. "Network in Aging: A Challenge, Model, and Evaluation," *The Gerontologist*, 28(2):147-155, 1988.

79. Katz, S. "Assessing Self-Maintenance: Activities of Daily Living, Mobility, and Instrumental Activities of Daily Living," *Journal of the American Geriatrics Society*, 31(12):721-727, December 1983.

80. Kim, P.K.H., Johnson, D.P., Su, L. "Education for Gerontological Social Workers: Problems and Prospects," *Gerontology and Geriatrics Education*, 6(4):69-76, Summer 1986.

81. Kosberg, J.I. "Preventing Elder Abuse: Identification of High Risk Factors Prior to Placement Decisions," *The Gerontologist*, 28(1):43-50, 1988.

82. Kroger, M.H., Papsidero, J.A., Isaacs, F., Jr., Gesten, F.C. "The Content of Textbooks in Geriatric Medicine: Some Directions for Improvement," *Gerontology and Geriatrics Education*, 7(1):37-53, Fall 1986.

83. Krout, J.A. "Rural-Urban Differences in Senior Center Activities and Services," *The Gerontologist*, 27(1):92-97, 1987.

84. Lago, D., Silverman, M., Eisele, F., Ricci, E., Britton, J. "The Development and Evaluation of Training Standards for the Aging Network and Academia: III. Conclusions and Implications," *Gerontology and Geriatrics*, 7(2):55-65, Winter 1986.

85. Lebowitz, B.D., Light, E., and Bailey, F. "Mental Health Center Services for the Elderly: The Impact of Coordination With Area Agencies on Aging," *The Gerontologist*, 27(6):699-702, 1987.

86. Leutz, W., Abrahams, R., Greenlick, M., Kane, R., Prottas, J. "Targeting Expanded Care to the Aged: Early SHMO Experience," *The Gerontologist*, 28(1):4-17, 1988.

87. Linsk, N.L, Keigher, S.M., and Osterbusch, S. "States' Policies Regarding Paid Family Care Giving," *The Gerontologist*, 28(2):204-212, 1988.

88. Lubomudrov, S. "Congressional Perceptions of the Elderly: The Use of Stereotypes in the Legislative Process," *The Gerontologist*, 27(1):77-81, 1987.

89. Ludman, E.K. and Newman, J.M. "Frail Elderly: Assessment of Nutrition Needs," *The Gerontologist*, 26(2):198-202, 1986.

90. Magee, J.H. *Gerontology Programs and Curricula in U.S. Schools of Public Health*, ASPH for HRSA, June 1985.

91. Michielutte, R., Diseker, R.A. "Health Care Providers' Perceptions of the Elderly and Level of Interest in Geriatrics as a Specialty," *Gerontology and Geriatrics Education*, 5(2):65-85, Winter 1984/85.

92. Miko, P.S. "College Students and Institutionalized Elderly: Attitudinal Effects of Interactive Contacts," *Gerontology and Geriatrics Education*, 6(3):37-42, Spring 1986.

93. Moon, M. "Impact of the Reagan Years on the Distribution of Income of the Elderly," *The Gerontologist*, 26(1):32-37, 1986.

94. Morris, R. "Concluding Remarks: Consequences of the Demographic Revolution," *The Gerontologist*, 27(4):423-424, 1987.

95. Mullins, L.C., McNicholas, N. "Loneliness Among the Elderly: Issues and Considerations for Professionals in Aging," *Gerontology and Geriatrics Education*, 7(1):55-65, Fall 1986.

96. National Advisory Council on Aging. *Our Future Selves. A Research Plan Toward Understanding Aging: Report of the Panel on Behavioral and Social Sciences Research*, NIH Pub. No. 80-1444, January 1980.

97. National Advisory Council on Aging. *Our Future Selves. A Research Plan Toward Understanding Aging: Report of the Panel on Research on Human Services and Delivery Systems*, NIH Pub. No. 80-1443, January 1980.

98. National Center for Health Statistics. "Aging in the Eighties, Age 65 Years and Over - Use of Community Services," *Advancedata*, 124:1-7, September 1986.

99. National Center for Health Statistics. "Use of Nursing Homes by the Elderly: Preliminary Data from the 1985 National Nursing Home Survey," *Advancedata*, 135:1-11, May 1987.

100. National Institute on Aging, NIH Pub. No. 83-1129, July 1983.

101. National Institute on Aging. *Age Page: Stroke: Prevention and Treatment*, DHHS, 1986.

102. National Institute on Aging. *Age Page: When You Need a Nursing Home*, DHHS, 1986.

103. National Institute on Aging. *Aging and Minorities*, GPO 885-273, 1981.

104. National Institute on Aging. *Changes: Research on Aging and the Aged*, NIH Pub. No. 81-85, October 1980.

105. National Institute on Aging. *Osteoporosis & Aging*, GPO 885-297, 1987.

106. National Institute on Aging. *Personnel for Health Needs of the Elderly Through the Year 2020*, September 1987.

107. National Institute on Aging. *Perspectives on Geriatric Medicine*, NIH Pub. No. 81-1924, October 1980.

108. National Institute on Aging. *Progress Report on Alzheimer Disease: Volume III*, NIH Pub. No. 86-2873, December 1986.

109. National Institute on Aging. *Special Report on Aging 1983*, NIH Pub. No. 83-2489, August 1983.

110. National Institute on Aging and Pfizer Pharmaceuticals. *Help Yourself to Good Health.*

111. National Institute on Aging Task Force. "Senility Reconsidered--Treatment Possibilities for Mental Impairment in the Elderly," *JAMA*, 244(3):259-263, 1980.

112. Netting, F.E, Wilson, C.C. "Current Legislation Concerning Life Care and Continuing Care Contracts," *The Gerontologist*, 27(5):645-651, 1987.

113. Nusberg, C. "Survey on International Course Content Related to Aging in the Curricula of American Higher Education," *Gerontology and Geriatrics Education*, 6(3):73-77, Spring 1986.

114. Oktay, J.S., Volland, P.J. "Foster Home Care for the Frail Elderly as an Alternative to Nursing Home Care: An Experimental Evaluation," *American Journal of Public Health*, 77(12):1505-1510, 1987.

115. Petchers, M.K., Milligan, S.E., "Access to Health Care in a Black Urban Elderly Population," *The Gerontologist*, 28(2):213-217, 1988.

116. Peterson, D.A. "Extent of Gerontology Instruction in American Institutions of Higher Education," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 1, Fall 1986.

117. Peterson, D.A. "Gerontology Courses," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 4, Spring 1987.

118. Peterson, D.A. "Gerontology Credentials," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 3, Spring 1987.

119. Peterson, D.A. "Organizational Structures of Gerontology Instructional Programs," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 2, Winter 1986/87.

120. Peterson, D.A. "Graduates' Perceptions of Gerontology Master's Degree Curricula," *Gerontology and Geriatrics Education*, 5(3):19-27, Spring 1985.

121. Pillemer, K, Finkelhor, D. "The Prevalence of Elder Abuse: A Random Sample Survey," *The Gerontologist*, 28(1):51-57, 1988.

122. Rick, S. "Hill Conferees Drafting 'Catastrophic' Health Deal," *Washington Post*, p. A6, March 1988.

123. Rick, S. "Shaking Up the System With Data for Consumers, Medicare Chief Hopes Initiatives Set Pattern," *Washington Post*, March 22, 1988.

124. Roden, J. "Aging and Health: Effects of the Sense of Control," *Science*, 33:1271-1275, September 1986.

125. Rossman, I. "Comprehensive Functional Assessment: A Commentary," *Journal of the American Geriatrics Society*, 31(12):763-765, December 1983.

126. Rubenstein, L. "The Chemical Effectiveness of Multidimensional Geriatric Assessments," *Journal of the American Geriatrics Society*, 31(12):758-762, December 1983.

127. Ruchlin, H.S. "Continuing Care Retirement Communities: An Analysis of Financial Viability and Health Care Coverage," *The Gerontologist*, 28(2):156-162, 1988.

128. Samuelson, R.J. "The Elderly Aren't Needy," *Newsweek*, March 21, 1988, p. 68.

129. Select Committee on Aging (House of Representatives): *America's Elderly at Risk*, July 1985.

130. Sharp, S.J.; Britton, J.H., Lazo, D., Ricci, E., Silverman, M. Shore, B.K., Young, J.E. "The Development and Evaluation of Training Standards for the Aging Network and Academia: I. Background and Rationale," *Gerontology and Geriatrics Education*, 7(2):39-45, Winter 1986.

131. Silverman, M., Shore, B.K., Jewell, I.K. "The Development and Evaluation of Training Standards for the Aging Network and Academia: IV: One Year Follow-Up Evaluation of the Implementation of the Training Standards," *Gerontology and Geriatrics Education*, 7(2):67-81, Winter 1986.

132. Sinclair, M. "Study Links Poverty, Health Care," *Washington Post*.

133. Smith, E.T., Kelly, K., Brown, C. "Aging: Can it Be Slowed?," *Business Week*, p. 58, February 1988.

134. Sommers, A.R., and Fabian, D.R. (Eds). *The Geriatric Imperative: An Introduction to Gerontology and Clinical Geriatrics*, Appleton-Century-Crafts, New York, N.Y., 1981.

135. Stone, Robyn, *Aging in the Eighties. Age 65 Years and Over - Use of Community Services: Preliminary Data from the Supplement on Aging to the National Health Interview Survey: United States. January - June 1985*, National Center for Health Services, Number 124, DHHS Pub. No. (PHS) 86-1250. Public Health Service, Hyattsville, MD, September 1986.

136. Storey, J.R. "Policy Changes Affecting Older Americans During the First Reagan Administration," *The Gerontologist*, 26(1):27-31, 1986.

137. Task Force on Alzhemier's Disease. *Alzheimer's Disease: A Scientific Guide for Health Practitoners*, NIH No. 84-2251, May 1984.

138. Taylor, H., Kagay, M. Leichenko, S. *Problems Facing Elderly Americans Living Along: A National Survey*, Louis Harris and Associates, Inc., 1986.

139. Tell, E.J., Cohen, M.A.; Larson, M.J., and Batten, H.J. "Assessing the Elderly's Preferences for Lifecare Retirement Options," *The Gerontologist*, 27(4):503-509, 1987.

140. Torres-Gil, F. and Pynoos, J. "Long-Term Care Policy and Interest Group Struggles," *The Gerontologist*, 26(5):488-495, 1986.

141. Touifexis, A. "Older - But Coming on Strong," *Time*, p. 76, February 22, 1988.

142. Turpic, I.D., Patterson, C., Chalklen, L.W., Bayne, R., Roy, J., Neufeld, C. "The McMaster Model for Geriatric Undergraduate Experience," *Gerontology and Geriatrics Education*, 6(4):59-67, Summer 1986.

143. U.S. Senate Special Committee on Aging. *Aging America. Trends and Projections*, 1987-1988 Edition.

144. U.S. Senate Special Committee on Aging. *The Health Status and Health Care Needs of Older Americans (An Information Paper)*, November 1986.

145. U.S. Senate Special Committee on Aging. *How Older Americans Live: An Analysis of Census Data*, October 1985.

146. U.S. Senate Special Committee on Aging. *Nursing Home Care: The Unfinished Agenda*, May 1986.

147. Weg, R.B. "AGHE - Coming of Age," *Gerontology and Geriatrics Education*, 5(1):17-31, Fall 1984.

148. Weiler, P.G. "The Public Health Impact of Alzheimer's Disease," *American Journal of Public Health*, 77(9).

149. Weiner, J.M., Ehrenworth, D.A., Spence, D.A. "Private Long-Term Care Insurance: Cost, Coverage, and Restrictions," *The Gerontologist*, 27(4):487-493, 1987.

150. Wilcop, Frances, M. "Issues in the Development of Training for Mental Health Service to the Elderly," *Gerontology and Geriatrics Education*, 6(2):49-63, Winter 1985.

151. Williams, T.F. "Comprehensive Functional Assessment: An Overview," *Journal of the American Geriatrics Society*, 31(11):637-641, November 1983.

152. Williams, T.F. "The Geriatric Medical Education Imperative," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):471-477, July-August 1985.

153. Williams, M.E. "A Critical Evaluation of the Assessment Technology for Urinary Continence in Older Persons," *Journal of the American Geriatrics Society*, 31(11):657-664, November 1983.

154. Yeatts, D.E., Capitman, J.A., Steinhardt, B.J. "Evaluation of Connecticut's Medicaid Community Case Waiver Program," *The Gerontologist*, 27(5):652-659, 1987.

155. Young, C.L., Goughler, D.H., Larson, P.J. "Organizational Volunteers for the Rural Frail Elderly: Outreach, Casefinding, and Service Delivery," *The Gerontologist*, 26(4):342-394, 1986.

I. Introduction

Introduction to Module: Continuum of Care Services for Older Adults

The primary purpose of this module is to familiarize public health professionals and others concerned with providing health care services to the elderly with the range of services required to be fully responsive to the needs of both the well elderly and frailer segments of the aging cohort, as well as their families and other caregivers.

This module reviews the demographic trends that impact the need for a continuum of care, particularly chronic care services. The basic concept of this module is that the elderly require a diverse array of medical, social, and psychological treatment and support services that must be integrated and coordinated to meet individual needs, as these change over time. In addition, the module describes the nature of both long-term care and chronic illness as these shape the need for a coordinated, comprehensive system of service delivery.

This module addresses the specific programs that are desirable components of a continuum of services offered in the home, in the community, at congregate housing, and in institutional settings. Public health professionals are encouraged to examine the appropriate role of their agency/organization in implementing such programs and/or networking to ensure the delivery, administration, funding, etc., of such services.

Notes to the Instructor

The remainder of this module is organized into six sections. Section II presents the Overview of the training, as well as a listing of the resources referenced within the training module.

Section III contains the core content for the training module. The materials have been organized in five sub-sections to facilitate a range of training formats, such as lunch-time sessions through full-day workshops. The Training Content is presented in a two-column format. The left-hand column presents miniaturized versions of the overheads designed to accompany training lectures/discussions. The overheads are symbolized by boxes formed of unbroken lines. Directions for training activities are also placed in the left-hand column; these are denoted by dotted lines. Many activities require the use of flipcharts and markers; please be sure you have arranged for these materials. The right-hand column contains the substantive material that serves as a script for training. Where handouts accompany the training, these have been noted by a symbol of three overlapping pages.

Section IV presents the full-scale version of Overheads. These may be used as overheads or may be duplicated for use as handouts. When using these materials as overheads, remember that you will need to have access to an overhead projector and screen. Trainers may find the use of slides more convenient than overheads. The material in Section IV can be formatted as slides. The visual image of such slides may be enhanced by using a blue background with white print.

Introduction to Module: Continuum of Care Services for Older Adults (Continued)

Section V presents the Handouts that accompany the training content. Both overheads and handouts should be assembled and reviewed prior to use in a training session. It is advisable to prepare sufficient copies of handouts for the anticipated number of trainees, as well as a few extra for unforeseen circumstances.

Section VI presents relevant Resources, including bibliographies, that may be useful to the trainer and/or to trainees. You may wish to make duplicate copies of these resource listings for distribution during or immediately following training sessions.

Section VII presents Readings that serve as background to the training issues or that provide additional detail on selected issues. These readings may be recommended to trainees in advance of actual training sessions, or upon completion of the module.

II. Overview

Overview of Training: Continuum of Care Services for Older Adults

1. **Demographics: Implications for Health Care**

Time: Lecture/Discussion (45 minutes), including:
- Self-Test (5 minutes)
- Review of Test (5 minutes)

Objective: To review the demographic trends that impact the need for a continuum of care services.

Overheads:
1. Figure 1. Number of Persons Aged 65 and Older: 1900-2030
2. Table 1. Trends in Population Aged 65 and Older: 1980-2000
3. Demand for Long-Term Care
4. Conditions that Shape the Need for Public Policy and Development of Service Networks
5. Figure 2. Percent Having Difficulty and Receiving Help with Selected Activities
6. Typical Chronic Conditions
7. Figure 3. Per Capita Personal Health Care Expenditures (by Type of Care, Age, and Sex, 1980)
8. Trends
9. Impact Based Upon Population Projection for Next 50 Years
10. Implications

Handouts:
1. T/F Fact Sheet
2. Figure 1. Number of Persons Aged 65 and Older: 1900-2030
3. Table 1. Trends in Population Aged 65 and Older: 1980-2000.
4. Figure 2. Percent Having Difficulty and Receiving Help with Selected Activities
5. Table 2. Physician Contacts, United States, 1983 and 1987
6. T/F Fact Sheet: Responses

2. **Components of Geriatric Care Service Systems**

Time: Lecture/Discussion (30 minutes), including:
- Self-Test (5 minutes)
- Review of Test (5 minutes)

Objective: To describe the components of a comprehensive continuum of care for the elderly.

Overheads:
1. Use of Services
2. System Flaws
3. Geriatric Care
4. Disease Vs. Illness
5. Measurement of Functional Status
6. Client-Centered Services
7. Service Settings
8. Critical Factors for Coordination of Service Delivery Programs
9. Multi-disiplinary Approach
10. Interdisciplinary Team
11. Transdisciplinary Team

3.. **Overview of Long-Term Care/Chronic Care**

Time: Lecture/Discussion (60 minutes), including:
- Activity A or B (20 minutes)

Objective: To discuss long-term care and the major elements of a system of long-term care for the elderly.

Overheads:
1. Quotation
2. Elderly as an At-Risk Group
3. Definition of Long-Term Care
4. Nature of Chronic Illness
5. Definition of Chronic Care
6. Objectives of a Continuum of Care
7. Basic Principles of a Long-Term Care System
8. Barriers to Long-Term/Chronic Care

Handouts:
1. Components of the Continuum of Care: Questions for Debate
2. Information and Referral Services

4. **Models for Long-Term/Chronic Care**

Time: Lecture/Discussion (25 minutes), including
- Activity (5-10 minutes)

Objective: To describe the models for long-term/chronic care, including the range of services that are appropriate to a continuum of care.

Overheads:
1. Reasons for a Continuum of Chronic Care
2. Linear Configuration
3. Circular Configuration of Services
4. Core Service Package
5. Controlled Access
6. Benefits of Assessment
7. Care Coordination
8. Detailed Circular Configuration of Services

Handouts:
1. Representative Selection of Commonly Used Geriatric Rating Indices
2. The Activities of Daily Living Scale (ADL)
3. The Older-Americans Resources Survey (OARS)
4. Continuum of Service Programs

5. **Continuum of Service Programs**

Time: Activity (60 minutes)
[Optional 15-to-20 minute discussion, in addition to above activity.]

Objective: To discuss the appropriate role of public health professionals for each of the services that comprise the continuum of care.

Handouts:
1. Service Program Worksheets
2. Care Management Guide
3. Resources Section (optional)

References

American Association of Retired Persons (AARP). *A Profile of Older Americans*, Washington, DC, 1985, 1986, 1987.

Appelbaum RA and Wilson NL. Training Needs for Providing Case Management for the Long-Term Care Client: Lessons from the National Channeling Demonstration. *The Gerontologist*. 28(2): 172-176, 1988.

Berman S, Delancey N, Gallegher D, Atkins P, and Graeber MP. Respite Care: A Partnership Between a Veterans Administration Nursing Home and Families to Care for Frail Elders at Home. *The Gerontologist*. 27(5): 581-584, 1987.

Besdine RW. *Observations on Geriatric Medicine*. DHEW Pub. No. (NIH)79-162, National Institute on Aging, Washington. DC, 1979.

Blazer D. Home Health Care: House Calls Revisited. *American Journal of Public Health*. 78(3), 238-239, March 1988.

Branch LG, Wetler TT, Scherr PA, Cook NR, et al. A Prospective Study of Incident Comprehensive Medical Home Care Use Among the Elderly. *American Journal of Public Health*. 78(3): 255, March 1988.

Congressional Clearinghouse on the Future. *Senior Boom: Aging of the U.S. Population Poses Complex Policy Challenge*. Washington, DC, 1985.

Capitman JA, Haskins B, and Bernstein J. Case Management Approaches in Coordinated Community-Oriented Long-Term Care Demonstrations. *The Gerontologist*. 25(4): 398-404, 1986.

Eisdorfer C. Educating for Caring. *Symposium on the Geriatric Medical Education Imperative, Bulletin of the New York Academy of Medicine*. 61(6): 573, July-August 1985.

Ford AB. Looking After the Old Folks. *American Journal of Public Health*. 77(12): 1499-1500, December 1987.

Frongillo EA, Williamson DF, Roe D, and Scholes J. Continuance of Elderly on Home-Delivered Meals Programs. *American Journal of Public Health*. 77(9), September 1987.

Harel Z, Noelker L, and Blake BF. Comprehensive Services for the Aged: Theoretical Empirical Perspectives. *The Gerontologist*. 25(6): 644-649, 1985.

Harrington C, Newcomer RJ, Estes CL, et al. (eds.). *Long-Term Care of the Elderly: Public Policy Issues*. California: Sage Publications, 1985.

References (continued)

Henninger JL, Henninger WB, Morse CK, and Zweigenhaft RL. Physicians' Awareness of Services for the Elderly. *Gerontology and Geriatrics Education*. 7(2):21-28, 1986.

Hickey T. *Health and Aging*. Monterey, CA: Brooks/Cole Publishing Company, 1980.

Hing E. *Use of Nursing Homes by the Elderly: Preliminary Data from the 1985 National Nursing Home Survey*. National Center for Health Statistics, No. 135. DHHS Pub. No. (PHS)87-1200. Public Health Service, Hyattsville, MD, 1987.

Hodgson TA and Kopstein AN. Health Care Expenditures for Major Diseases in 1980. *Health Care Financing Review*. 5(4):4, 1984.

Johnson JE III. Geriatrics and Medical Education Initiatives of the Association of American Medical Colleges. *Symposium on the Geriatric Medical Education Imperative, Bulletin of the New York Academy of Medicine*. 61(6): 484-491, 1985.

Kapp MB. Interprofessional Relationships in Geriatrics: Ethical and Legal Considerations. *The Gerontologist*. 27(5):547-552, 1987.

Koff TH. *New Approaches to Health Care for an Aging Population*. San Francisco, CA: Jossey-Bass, Inc., 1988.

Koff TH. *New Approaches to Health Care for an Aging Population: Developing a Continuum of Chronic Care Services*. ASA Workshop, March 1989.

Krout JA. Rural-Urban Differences in Senior Center Activities and Services. *The Gerontologist*. 27(1): 92-97, 1987.

Leutz W, Abrahams R, Greenlick M, Kane R, Prottas J. Targeting Expanded Care to the Aged: Early SHMO Experience. *The Gerontologist*. 28(1): 4-17, 1988.

Linsk NL, Keigher SM, and Osterbusch SE. States' Policies Regarding Paid Family Care Giving. *The Gerontologist*. 28(2): 204-212, 1988.

National Advisory Council on Aging: *Our Future Selves, A Research Plan Toward Understanding Aging: Report of The Panel on Research on Human Services and Delivery Systems*. NIH Pub. No. 80-1443, Washington, DC, January 1980.

National Advisory Council on Aging. *Our Future Selves, A Research Plan Toward Understanding Aging: Report of The Panel on Behavioral and Social Sciences Research*. NIH Pub. No. 80-1444, Washington, DC, January 1980.

References (continued)

National Center for Health Statistics (NCHS). *Health, United States, 1988.* DHHS Pub. No. (PHS) 89-1232. Public Health Service, Washington, DC, 1989.

National Institute on Aging. *Perspectives on Geriatric Medicine.* NIH Pub. No. 81-1924, Washington, DC, October 24, 1981.

Netting FE, and Wilson CC. Current Legislation Concerning Life Care and Continuuing Care Contracts. *The Gerontologist.* 27(5): 645-651, 1987.

Oktay JS and Volland PJ. Foster Home Care for the Frail Elderly as an Alternative to Nursing Home Care: An Experimental Evaluation. *American Journal of Public Health.* 77(12): 1505-1510, 1987.

Ouslander JG and Beck JC. Defining the Health Problems of the Elderly. *Annual Review of Public Health.* 3:55-83, 1982.

Petchers MK and Milligan SE. Access to Health Care in a Black Urban Elderly Population. *The Gerontologist.* 28(2): 213-217, 1988.

Pfeiffer GJ. *Taking Care of Today and Tomorrow: A Resource Guide for Health, Aging, and Long-Term Care.* Reston, VA: The Center for Corporate Health Promotion, 1989.

Rice DP. Health Care Needs of the Elderly in: Harrington C, Newcomer RJ, Estes CL (eds.). *Long-Term Care of the Elderly: Public Policy Issues.* California: Sage Publications, Inc., 1985.

Ruchlin HS. Continuuing Care Retirement Communities: An Analysis of Financial Viability and Health Care Coverage. *The Gerontologist.* 28(2): 156-162, 1988.

Sloane B, Davis LJ, and Wood GJ. *The Pacific Geriatric Education Center Final Report: Years 01-05 (Volume 2, Appendix D).* Los Angeles, CA, 1988.

Stone R. *Aging in the Eighties, Age 65 Years and Over - Use of Community Services; Preliminary Data from the Supplement on Aging to the National Health Interview Survey: United States, January-June 1985.* National Center for Health Services, DHHS Pub. No. (PHS)86-1250. Number 124, Public Health Service, Hyattsville, MD, September 30, 1986.

Tell EJ, Cohen MA, Larson MJ, and Batten HL. Assessing the Elderly's Preferences for Lifecare Retirement Options. *The Gerontologist.* 27(4): 503-509, 1987.

Torres-Gil F and Pynoos J. Long-Term Care Policy and Interest Group Struggles. *The Gerontologist.* 26(5): 488-495, 1986.

References (continued)

Toufexis A. Older-But Coming on Strong. *Time*. February 22, 1988.

U.S. Senate Special Committee on Aging. *How Older Americans Live: An Analysis of Census Data*. Washington, DC, October 1985.

U.S. Senate Special Committee on Aging. *The Health Status and Health Care Needs of Older Americans (An Information Paper)*. Washington, DC, November, 1986.

U.S. Senate Special Committee on Aging. *Nursing Home Care: The Unfinished Agenda*. Washington, DC, May 1986.

U.S. Senate Special Committee on Aging. *Aging America: Trends and Projections (1987-1988 Edition)*, DHHS, Washington, DC, 1988.

Young CL, Goughler DH, and Larson PJ. Organizational Volunteers for the Rural Frail Elderly: Outreach, Casefinding, and Service Delivery. *The Gerontologist*. 25(4): 342-344, 1986.

III. Training Content

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (45 minutes)	DEMOGRAPHICS: IMPLICATIONS FOR HEALTH CARE

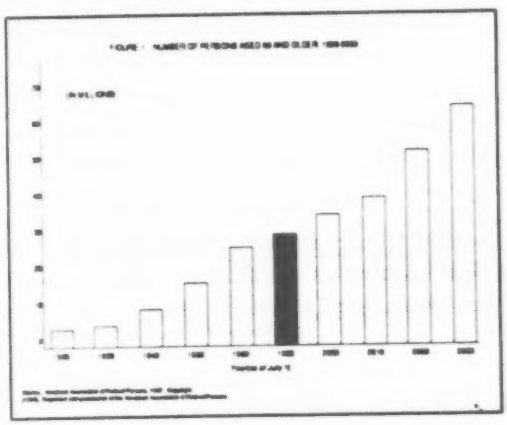
1. Review the demographic trends that influence the need to develop a continuum of services.

Activity. Self-Test: (5 minutes):

- Hand out T/F Fact Sheet for individual participants' completion.
- Do not discuss correct responses at this time.

Handout: T/F Fact Sheet

Overhead/Handout: Figure 1. Number of Persons Aged 65 and Older: 1900-2030



Three demographic trends have important implications for systems of health care (AARP, 1987):

- *The number of elderly Americans is increasing.* Since 1990, the percentage of Americans 65+ has tripled (from 4.1% in 1900 to 12.1% in 1986), while the actual number of 65-and-older persons increased from 3.1 million to 29.1 million.
- *The percentage of the population that is 65 or older is increasing.* The number of older Americans increased by 14% from 1980 to 1986, compared with only a 5% increase for the under-65 population during that same period.
- *The 85+ group is the fastest growing segment.* In 1986, the 65-74 age group (17.3 million persons) was nearly 8 times larger than in 1900, while the 85+ group (2.8 million persons) was 22 times larger.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead/Handout: Table 1. Trends in Population Aged 65 and Older: 1980-2000

TABLE 1 TRENDS IN POPULATION AGED 65 AND OLDER: 1980-2000

	Population (by Thousands)			Annual Rate of Change	
Age Group	1980	1990	2000	1980-1990	1990-2000
65-69	8,780.8	10,066.3	9,110.2	1.3%	-0.9%
70-74	6,766.7	8,048.0	8,585.8	1.7	0.6
75-79	4,782.6	6,223.7	7,342.2	2.6	1.5
80-84	2,934.2	4,060.1	4,984.6	3.3	2.0
85+	2,229.7	3,460.9	4,984.6	4.4	4.0
Total	25,544.1	31,799.1	35,006.3	2.2%	1.0%

Source: U.S. Bureau of the Census, 1983

The older population is expected to continue to grow in the future.

- The growth rate is expected to slow down in the 1990s due to the lowered birth rates of the Great Depression period (1930s).
- The most rapid increase is expected between 2010 and 2030, when the "baby boomers" reach 65.
- If current fertility and immigration levels remain stable, the only age groups to experience significant growth in the next century will be those past 55.

Overhead: Demand for Long-Term Care

- 6 million fractures annually sustained by the elderly.
- 2 million elderly stroke survivors require rehabilitation annually.
- 75% of all amputations are performed on the elderly.

Demand for long-term care services is expected to increase as the number of people 65 and older increases since this age cohort requires more long-term care services than younger groups (Koff, 1988). For example:

- The elderly sustain six million fractures each year.
- Approximately two million elderly stroke survivors require rehabilitation services annually.
- 75% of all amputations are performed on individuals aged 65 and older; many of these are due to Type II diabetes.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

The demographic trends are expected to place increasing strain on the current supply of long-term care services, such as nursing home resources. For example:

- The rapid growth in the size of the cohort aged 75-84 is significant because this is a key group that uses nursing homes and congregate residential facilities.
- Those 85 and older are the most likely users of skilled nursing and intermediate care facilities:
  - The size of this population is projected to more than double from 2.2 million in 1980 to 4.9 million in 2000.
  - Those 85+ have a 3-fold greater risk of losing their independence and 7 times greater chance of entering a nursing home (U.S. Senate Special Committee on Aging, 1988).

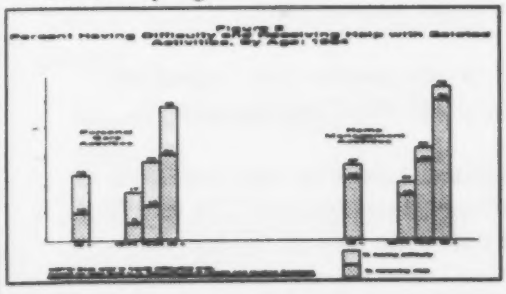
Overhead: Conditions That Shape Need for Public Policy and Development of Service Networks

- Restrictions due to illness/injury increase.
- Need for functional assistance increases.
- Tendency to have at least one chronic condition; maybe more.
- More likely to be hospitalized.
- More use of physician services.
- Health care expenditures increase.

The increasing proportion of older people in the population represents a significant challenge for public policy and for the development of service networks because the needs of individuals change as they age (AARP, 1986, 1987).

- *The number of days in which usual activities are restricted due to illnesses or injury increases with age.* Based upon figures for noninstitutionalized populations only:
  - Older persons averaged 32 such days in 1986 (28 days for males and 35 days for females; 31 days for Whites, 43 days for Blacks).
  - All or most of 15 of these days were spent in bed (12 days for males, 17 days for females; 14 days for Whites, 21 days for Blacks).
- *The need for functional assistance also sharply increases with age.*
  - In 1984, about 6.0 million (23%) older persons living in the community needed the assistance of another person to perform one or more selected *personal care* activity (AARP, 1986).

Overhead/Handout: Figure 2. Percent Having Difficulty and Receiving Help with Selected Activities by Age: 1984



-- *Personal care* activities included bathing, dressing, eating, using the toilet, getting in or out of a bed, and getting around inside.

-- Less than half of these people actually received the personal help they required.

- 7.1 million (27%) had difficulty with one or more home management tasks.

-- *Home management* activities included preparing meals, shopping, doing housework, using a telephone, taking medicine, getting around outside, and managing money.

-- Most of those people who required home management help received some assistance.

- The percentages of older adults needing and actually receiving help increase sharply with age.

Overhead: Typical Chronic Conditions

- Arthritis (48%)
- Hypertension (39%)
- Heart Disease (30%)
- Hearing Impairments (29%)
- Orthopedic Impairments (17%)
- Sinusitis (17%)
- Cataracts (14%)
- Diabetes (10%)
- Visual Impairments (10%)
- Tinnitus (9%)

Source: AARP, 1987

- *Most older people have at least one chronic condition, and many have multiple conditions.* Among noninstitutionalized elderly, the most typical conditions in 1986 were arthritis (48%), hypertension (39%), heart disease (30%), hearing impairments (29%), orthopedic impairments and sinusitis (17% each), cataracts (14%), diabetes and visual impairments (10% each), and tinnitus (i.e., ringing in the ears) (9%) [AARP, 1987].

- The possibility of multiple conditions makes it especially important for practitioners to obtain a good medical history.

- The medical history is key to determining the service needs of the elderly.

- *Individuals 65 and older are more likely to be hospitalized, and also more likely to have longer hospital stays.*

- Approximately 20% of older persons were hospitalized during 1982, compared with 9% of persons under 65.

- Among those hospitalized, the elderly were more likely to have more than one hospital stay per year (27% vs. 17%) and to spend longer time in the hospital (10 days vs. 7 days).

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	-- A significant percentage (close to 40%) of the hospitalizations of the elderly are drug related. -- DRGs do not always cover the amount of time required by the elderly.
Handout: Table 2. Physician Contacts, United States, 1983 and 1987.	• *Older persons make more frequent use of physician services.* - Individuals 65+ averaged nearly 9 physician contacts per person in 1987, as compared to an average 5.4 contacts per person for the total population. - Furthermore, the nature of the contacts is significantly different; for instance, more than 6% of physician contact with older persons involved home visits, as compared to less than 1% home-visit contact for younger populations (NCHS, 1989). • *Health care expenditures increase with age.* In 1984, the 65+ age group represented 12% of the U.S. population, but was projected to account for 31% of total personal health care expenditures. - These expenditures were expected to total $120 billion and to average $4,202 per year for each older person, more than three times the $1,300 spent for younger persons. - About $1,000 (or one-fourth) of the average expenditure was expected to come from direct ("out-of-pocket") payments by or for older persons. - Hospital expenses were projected to account for the largest share (45% of health expenditures for older persons in 1984), followed by physician services and nursing home care (21% each). - Benefits from government programs, including Medicare ($59 billion), Medicaid ($15 billion), and others ($7 billion), were projected to cover about 67% of the health expenditures of older persons in 1984, compared with only 31% for persons under 65 (AARP 1987).
Activity. <u>Review Responses to Self-Test (5 min.)</u>: • Hand out T/F Fact Sheet: Responses • Review responses to T/F Fact Sheet before continuing.	Review of responses to T/F Fact Sheet.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead: Figure 3. Per Capita Personal Health Care Expenditures (by Type of Care, Age, and Sex, 1980)

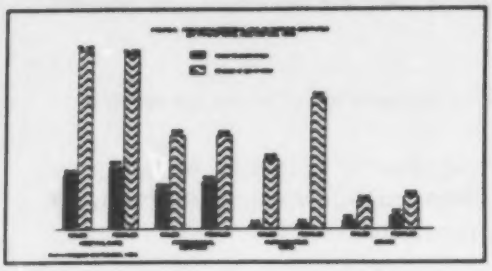


Figure 3 illustrates the increase, by age cohorts, in utilization of health services. While increases in each of the areas of care, as presented, have already accumulated and may be anticipated in the future with the continued growth of the aging population, the graph supports the conclusion that the most productive efforts to reduce the high cost of services will be those targeting reduction of hospitalization and nursing home admissions.

- The data presented indicate a need for a variety of services.
- In addition, there is a real need not just for different types of services, but also for a comprehensive system that is responsive to the growing number of older people.
- A comprehensive system is needed to ensure appropriate use of services, based upon:
  - Timely *assessment* of individual needs.
  - *Controlled access* to services for cost-containment purposes.
  - *Care coordination* to integrate the many services required by chronically ill individuals.

Overhead: Trends

- Increased size of elderly population, particularly 85+ segment.
- Smaller family size; increased family mobility.
- "Spend down" policies.

The Congressional Clearing House on the Future (1985) has summarized the trends and their implications as follows:

- The U.S. is faced with an expanding population of elderly who will increasingly require long-term care services, including home-based, community-based, and nursing home care.
- The elderly population is increasing in size; the over-85 cohort constitutes the fastest growing population group in America.
- The size of the American family is decreasing; and the modern nuclear family is mobile, as well as typically comprised of working adults. This may engender less family-based support and more reliance on outside services for elderly people.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- The elderly are being forced by public policy to spend themselves into poverty.
  - Currently, only Medicaid, a program for impoverished persons, provides substantial coverage of long-term care. Middle-class elderly faced with large bills for long-term care must "spend down" their assets to become eligible for Medicaid.
  - Out-of-pocket health expenses for the elderly are now the same as they were prior to the enactment of Medicare and Medicaid. In 1984, these amounted to an average of 15% of the income of the elderly (NCHS, 1989).
- While some coverage has been enhanced through the Catastrophic Care Act of 1988, other cost containment initiatives have restricted existing coverage of long-term care. For example, in July 1985, the Secretary of Health and Human Services announced a $443 million cut in home health care financing effective 1985-1988.

Overhead: Impact Based Upon Population Projection for Next 50 Years

- Population of 65+ will increase 160%.
- Number of elderly with ADL limitations will triple.
- Short-stay hospitalizations will double.
- Nursing home residents will increase from 1.5 million to 5.2 million.
- 159% increase in personal health expenditures of the elderly.

Rice and Feldman, using population projections developed by Social Security actuaries, predicted significant impact of demographic changes on health status, health services, utilization, and exenditures for health care to the year 2040 (Rice, 1986):

- The total population is projected to increase 41%, while the group 65 and over will increase 160%.
- The total number of persons limited in activities of daily living (ADLs) is projected to more than double; the number of elderly with limitations will more than triple.
- Total short-stay hospital days will double, with more than half of this increase due to the aging of the population.
- The number of nursing home residents is projected to increase from 1.5 million to 5.2 million in 2040.
- Personal health expenditures are projected to increase 68% for the total population, but 159% for the elderly.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead: Implications

- Decline in the range and quality of health care services.
- Increased demand for LTC, and diminished supply of LTC services.
- Less financial independence of elderly who must spend down.
- Increased reliance on institutional care.
- Unintended negative consequences from cost-containment initiatives.

If these trends are left unaddressed, we may see such unintended negative consequences as:

- Decline in the range and quality of health care services.
- Disequilibrium between an increasing demand for long-term care, and a stable or shrinking supply of long-term care services and coverage.
  - For example, there are currently about 22,000 nursing homes, comprising 1.5 million nursing home beds.
  - If the Rice and Feldman projections are accurate, demand for nursing home beds will reach 5.2 million within 50 years.
  - Some observers have noted that meeting such needs would require building a new nursing home daily for the next 60 years.
- Increased threat to the financial independence of the elderly as a result of "spend down" upon institutionalization.
- Increased reliance upon expensive hospital and nursing home care as people lose access to home- and community-based care.
- Failure of cost-containment measures as current cuts cause cost increases in the long run.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (30 minutes)	**COMPONENTS OF GERIATRIC CARE SERVICE SYSTEMS**
2. Describe the components of a comprehensive continuum of care for the elderly.	Policy issues related to planning services to meet the needs of older adults should be viewed in the context of the *heterogeneity* of the elderly population. While it is true that about 5% of the elderly are institutionalized at any one time, 95% are not institutionalized. • The majority lead active, independent lives even with chronic conditions. • There are increasing numbers of "young-old" who are retired, relatively healthy, and vigorous -- who need programs suited to their lifestyles and health status (National Advisory Council on Aging (B), 1980).
Overhead: Use of Services • 78.5% No services • 21.5% 1 or more services • 11.4% 1 only • 7.4% 2 only • 2.7% 3 or more	• A nationwide study of use of community services by those 65 and older showed (Stone, 1986): - 78.5% used no community services. It is important to note, however, that the low use of community services should not be interpreted to mean that all non-users were healthy and not in need of any support. -- Some individuals were dependent upon unpaid caretakers. -- Others could not access or afford community services, despite their need for support. - 21.5% used 1 or more community services. - 11.4% used only 1 community service. - 7.4% used only 2 services. - 2.7% used 3 or more community services. - 15% reported using senior citizen centers. - 8% reported eating meals at the center. - 3% reported using visiting nurse care. - 2% reported using home health aides. - 17% reported using homemaker services. • The study showed use of special transportation and also use of in-home services increased with age (Stone, 1986). • Those living alone seem to use more services than those living with others.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: System Flaws • Too little known about how to organize/ deliver comprehensive services • Ineffective/inefficient responses to age-related needs of individuals/families • Inflexible programs • Culturally insensitive programs • Gaps in services • Insufficient promotion of programs • Lack of agreement on what the elderly need	The National Advisory Council on Aging concluded that our service delivery systems are flawed (National Advisory Council on Aging(A), 1980); they noted a range of issues: • Too little is known about how to organize and deliver a comprehensive range of services. • Communities are often unable to respond effectively and efficiently to age-related needs of individuals and families. • Service programs are often not flexible enough for persons in need of assistance. • Service programs often lack understanding of the target audience's culturally determined attitudes, beliefs, and values. • Services sometimes are not available; there are gaps in the system. • Even when services are available, individuals may not be aware of their existence. - This lack of awareness is not limited to the general public. - Often health practitioners are unaware of available services. • There is a lack of congruence between the needs of the elderly as perceived by the elderly and the needs of the elderly as seen by professionals. - 30% of consumers listed priority needs that bore no relation to the priority goals established by state agencies. - This is significant, because public health decision makers and program administrators need to figure out whose perspective is most accurate/advantageous, and plan accordingly. Conceptually, it is possible to distinguish between a comprehensive system of geriatric care and a long-term care system.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Geriatric Care • Health maintenance/disease prevention • Intermittant acute care • Chronic care	*Geriatric care* includes: • Health maintenance and disease prevention services for the healthy or relatively healthy, and for those who are already ill. • Intermittant care during episodes of acute illness for both the well and frail elderly. • Treatment of chronic disabilities. A variety of factors, which distinguish older adults from younger people, influence health status, as well as illness behavior and the ensuing utilization of health care services (Ouslander and Beck, 1982). • Physiologic reserves decline, and susceptibility to stress increases. • Chronic illness and disability become more prevalent with age. • Psychosocial crises (e.g., retirement, widowhood become more common.) Since complex relationships exist between physical health, mental health, and socioeconomic status, defining the health of elderly persons must incorporate measures of these complex relationships. The traditional conceptualization of health status as the presence or absence of a series of disease states is not as useful when dealing with the elderly as it is with other population sub-groups, for at least 2 reasons (Ouslander and Beck, 1982): • It is important not to lose sight of the crucial (not just semantic) distinction between *disease* and *illness*: - *Disease* refers to a specific disagnosis, such as pneumonia, arteriosclerosis, stroke. - *Illness* refers to the presence of a specific disease, as well as the individual's perceptions and behaviors in response to the disease; and it also includes the disease's impact on the individual's psychosocial environment.
Overhead: Disease vs. Illness • *Disease* refers to a specific diagnosis • *Illness* refers to presence of a specific disease, as well as: - Individual's perceptions/behavior in response to disease - Impact on individual's psychosocial environment	

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- Given the complex interaction of physical health, emotional health, and social stability in the elderly, it may be more appropriate to think in terms of illness, rather than disease, when defining/measuring the health of older adults.

- Secondly, defining health in terms of disease eliminates a critical component of the health of the elderly -- namely, functional status.

  - Impairment of function impacts the elderly individual's ability to cope with disease and illness, as well as the need for and utilization of health care services.

Overhead: Measurement of Functional Status

- Activities of daily living (ADLs) -- dressing, eating, bathing, toileting.
- Instrumental activities of daily living (IADLs) -- shopping, cooking, housekeeping, fiscal responsibilities.

  - Functional impariment can be measured in terms of activities of daily living (ADLs) and instrumental activities of daily living (IADLs).

    -- ADLs include such functions as dressing, eating, bathing, and toileting.

    -- IADLs refer to such functions as shopping, cooking, housekeeping, overseeing fiscal responsibilities.

  - It is critical to include some measures of functional status when defining the health of the elderly.

Interestingly, in 1986, 30% of older adults assessed their health as fair or poor (compared to 7% of the under -65 population reaching the same assessment) (AARP, 1987):

- Males and females demonstrated little difference on this measure.

- Older Blacks were significantly more likely to rate their health as fair or poor (45%) than were older Whites (29%).

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

One way to approach the issue of devising an effective system of care is to think in terms of developing a continuum of services that ranges from those that promote health and well-being through those that resolve a problem that negatively impacts health.

Overhead: Client-Centered Services

- Maximize individual independence.
- Provide least restrictive setting for care.
- Encourage client input to decision making.
- Respect individual differences.
- Serve chronically ill, as well as provide proactive treatment for those without chronic disabilities.
- Promote wellness.

Services must be client centered. They must:

- Maximize the independence of the person seeking services.
- Emphasize care in the least restrictive setting.
- Encourage the elderly consumer to participate actively in all decisions affecting his or her treatment and lifestyle.
- Permit the elderly consumer to maintain his or her dignity and respect, recognizing that people are individuals, with different personalities, different values, different interests and avocations, different needs, and different desires and hopes for the future.
- Serve clients of all ages, including both those who are chronically ill and those for whom appropriate intervention may prevent disability.
- Encompass services that maintain/promote wellness.

Overhead: Service Settings

- Span several locations:
  - Home
  - Community
  - Congregate Facilities
  - Institutional.
- Encourage individuals to remain in their community.
- Include a spectrum of services to meet individual needs.

Services are offered in many locations, not just at the client's home or in an institutional setting. Individual health status is not static -- it is dynamic, changing over time, including chronic conditions, as well as episodes of acute illness. Even in the trajectory of chronic illness, there may be a need for many different services, some for short periods of time, while others will be on-going. Services must:

- Provide incentives for the elderly to remain in their communities by emphasizing services that are community based and locally controlled.

- Provide a spectrum of services that meet the changing needs of elderly populations who are living at home (either homebound or able to ambulate to community-based facilities), are in congregate surroundings, or are institutionalized.

- Recognize that at times, serious deterioration of a person's health or other circumstances may necessitate institutional services, which will be called into play only after a complete assessment of the client's needs/circumstances supports such a referral.

Overhead; Critical Factors for Coordination of Service Delivery Programs

- Shared philosophy/goals.
- Uniform intake and assessment process.
- Complementary protocols for care coordination.
- Address needs of well elderly and frail elderly.
- Establish outreach activities.
- Encompass array of services needed by heterogeneous cohort.
- Integrate range of medical, social, and psychological formal and informal support services.
- Cost-efficient service delivery.
- Structured case management approach.

Services must be coordinated. The concept of organizing services into a coordinated continuum has one purpose: to make it easier for individuals to access whatever services they need. It is unnecessary for all services to be provided through a single organizational structure; coordination promotes the ability of all service components to work together.

- The future may portend battles over who is going to be the gatekeeper.

- Currently, some structures favor social work, while others favor nursing, for the gatekeeping function.

There is no requirement that discrete program sponsors have similar structures or funding sources. The critical factors are shared philosophy and goals, a uniform intake and assessment process, and protocols for care coordination. The system must:

- Meet the needs of the well elderly, as well as the frail elderly.

- Incorporate an active outreach component that (i) ensures early identification of those in need of chronic care services and (ii) optimizes timely intervention to prevent unnecessary complication due to illness or injury.

- Encompass the full array of services needed to meet the multiple needs of the elderly, who comprise a heterogeneous group -- physically, socially, and psychologically.

- Establish that care entails not just medical treatment of chronic conditions, but also a comprehensive array of other health care (e.g., acute care, drug coverage, rehabilitation) and social services (e.g., transportation, protective services).

  - And, it should be emphasized that comprehensive care is also a requirement in the long-term care facility.

  - Often nursing homes provide custodial care and medical treatment, but not rehabilitative and mental health care, which should also be routinely available and used as appropriate.

- Encourage the integration of informal support systems (family, friendships, and volunteer networks) with the services of health care practitioners.

  - For example, family members can be trained to oversee the oral hygiene of frail elderly persons who are unable to ensure their own dental care.

- Demonstrate cost-effective financing and service delivery mechanisms.

- Provide coordinated care ("case management") and a centralized administrative structure for those in need of services.

  - Services must be integrated and articulated with one another.

  - An interdisciplinary "team" is optimal in terms of health-effectiveness, as well as cost-effectiveness.

  - This is not an attack on specialists, but rather recognition that specialists must work together in the interest of multiproblem patients.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

The importance of a functionally integrated health team should not be underestimated.

- The complex nature of the functional health problems experienced by older adults underscores the need for a team approach.

- Health professionals work together in configurations that may be described as multidisciplinary, interdisciplinary, or transdisciplinary (Sloan, Davis, and Wood, 1988):

Overhead: Multidisciplinary Approach

- Professionals from many different disciplines work with the same individual
- Each professional/discipline identifies discrete goals and treatment program

- The *multidisciplinary approach* asumes that all health professional domains are appropriated to satisfy the holistic nature of the health requirements of older adults.

  -- Multidisciplinary is defined largely at the conceptual and theoretical level -- each discipline defines its roles and functions, understands the roles and functions of the other disciplines, and perceives how they can coexist -- rather than operationally as a practicing team.

  -- In practice, multidisciplinary groups work with the same individual, but each professional (discipline) has a unique goal and treatment program.

Overhead: Interdisciplinary Team

- Team comprised of different disciplines
- Team members mutually identify and define a common treatment goal
- Each professional functions within his/her own professional domain to implement common treatment plan and achieve common goal

- *Interdisciplinary* implies the integration of a group, comprised of professionals from diverse disciplines, who come together as a team to mutually identify and define a common treatment goal.

  -- Interdisciplinary is an applied phenomenon.

  -- Each professional is oriented toward the common goal, while functioning within the limits of his/her defined professional domain.

  -- Ideally, interdisciplinary teams are egalitarian -- no one discipline is nore highly valued than others; each makes a special contribution to the smooth, effective care of the patient.

Overhead: Transdisciplinary

Interdisciplinary team where members operate across disciplinary boundaries to ensure continuity of care

- *Transdisciplinary* is defined as an interdisciplianry team where team members operate across the disciplinary boundaries of their discrete professional domains (i.e., different disciplines may implement the same treatment function in order to permit continuity in attaining the consensually derived treatment goal.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (60 minutes)	OVERVIEW OF LONG-TERM/CHRONIC CARE

3. Discuss long-term care and the major elements of a system of long-term care for the elderly.

Overhead: Quotation

" In old age, there occur breathing and urinary difficulties, choked nostrils, joint and renal pains, paralysis ... the more chronic maladies of the ears, eyes. ... Old age is more exposed to chronic disease, youth to acute illness." (Aurelius Cornelius Celsus, First century, A.D.)

" In old age, there occur breathing and urinary difficulties, choked nostrils, joint and renal pains, paralysis ... the more chronic maladies of the ears, eyes. ... Old age is more exposed to chronic disease, youth to acute illness." (Aurelius Cornelius Celsus, First century, A.D.)

Overhead: Elderly as an At-Risk Group

- The elderly, as a group, are at-risk for chronic illness.
- Chronic illnesses have replaced infectious diseases as major health risks over life span.
- Risk of chronic illness increase with age.

While optimal geriatric care encompasses health promotion and disease prevention, as well as the provision of acute care for the well and ill elderly, the remainder of this module focuses on issues related to chronic conditions and long-term care systems. (Health promotion is discussed in a separate module.)

The elderly constitute an *at-risk population* given the increasing incidence of chronic conditions (Hickey, 1980).

- Chronic conditions seem to have overtaken infectious diseases as the major health risk over the life span.
- Risk implies *probability*.
  - The risk or probability of chronic illness increases with age -- almost as an effect of longevity.
  - -- Paradoxically, by successfully navigating through the various acute and infectious diseases of childhood and youth, and by surviving or avoiding any number of accidents, individuals gradually incur an increasing risk of developing diverse chronic conditions (Hickey, 1980).

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Activity. <u>What is Long-Term Care (20 min.):</u> Use either Activity A or B. Activity A. <u>Small Group Discussion:</u> • Divide into groups of two or three people. • Handout: Components of the Continuum of Care: Questions for Debate • Have each group achieve agreement, dis-agreement, or lack of consensus on each statement. • Have all participants engage in large group discussion of statements where consensus was not achieved. -OR- Activity B. <u>Brainstorm Session:</u> • Record responses to Question for Discussion on a flip chart. • Summarize discussion by emphasizing major points and key terms.	If A, hand out: Components of the Continuum of Care: Questions for Debate. -OR- If B, Question for Discussion: What are the objectives of a long-term care system? With respect to long-term care, it is a myth that most older people are cared for in nursing homes. • At any one time, only 5% of the elderly live in nursing homes. • Many older people take care of themselves and their family members, much as they did when they were younger, requiring little or no outside assistance. • In general, the family is still the number one caretaker of older Americans. • Most older people live close to their children and see them often; many live with their spouses. In all, 8 out of 10 men,

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

and 6 out of 10 women live in family settings.

It is also not true that families have only one alternative to institutionalizing an aging relative in need of care -- to provide necessary care themselves.

- A loosely linked network of services does exist to meet the needs of older people with significant health problems or loss of physical, psychological, or social functions.

- Such services range from simple friendly home visitations through temporary round-the-clock care under the auspices of a respite program or nursing home.

Overhead: Definition of Long-Term Care

"Long-term care consists of those services designed to provide diagnostic, preventive, therapeutic, rehabilitative, supportive, and maintenance services for individuals who have chronic physical and/or mental impairments, in a variety of institutional and noninstitutional health settings, including the home, with the goal of promoting the optimum of physical, social, and psychological functioning."

The Department of Health and Human Services (DHHS) states that:

"Long-term care consists of those services designed to provide diagnostic, preventive, therapeutic, rehabilitative, supportive, and maintenance services for individuals who have chronic physical and/or mental impairments. Such services should be made available in a variety of institutional and noninstitutional health settings, including the home, with the goal of promoting the optimum of physical, social, and psychological functioning."

This is certainly an ideal view.

- Clearly, a critical question that has not been resolved is "if this is the standard, who's going to pay for it?"

Nevertheless, this is a useful definition as a standard of reference since it refers to several crucial aspects of long-term care; namely:

- The need for chronic care.

- The intent to promote physical, social, and psychological functioning.

- The spectrum of services required.

INSTRUCTOR RESOURCE/ACTIVITY | **CONTENT**

Overhead: Nature of Chronic Illnesses

- Chronic illnesses cannot be cured.
- Chronic illnesses have uncertain prognoses.
- Chronic illnesses often involve a multiplicity of physical, social, and psychological problems.
- Chronic illnesses require a wide variety of services.
- Chronic illnesses are costly.

It is important to recognize that many of the ailments affecting the elderly are chronic conditions, rather than acute episodes of illness (although the elderly are also subject to acute illness). Chronic conditions differ from acute illnesses in several key ways:

- In the medical model of acute illness, everything has to be cured; but chronic illnesses don't fit that model.

- *Chronic illnesses cannot be "cured."* Unlike acute episodes of illness, chronic illnesses are long term by nature.

  - Care must be provided on an on-going basis as the functional capabilities and needs of the individual fluctuate.

  - Services must be organized to provide repeated interaction, as well as assessment, over long periods of time.

  - Since the illness is ongoing, services must be ongoing, not simply provided for a limited time and then withdrawn.

- *Chronic illnesses have uncertain prognoses.* The course of chronic illness evolves uniquely for each individual depending upon both the progression of disease, which differs from one person to the next, and the individual's reaction to illness and his/her coping mechanisms and ability to handle "extra stresses."

  - Neither the duration of a chronic condition, nor the regularity with which intervention may be needed, can be known in advance -- this makes planning difficult.

  - The chronic condition may be affected by intermittant transient episodes that require acute care.

  - The uncertain nature of the *trajectory of illness* is stressful for the patient, as well as demanding for the informal and formal care providers since they must be prepared to continuously assess and respond to fluctuating functional capacities and emergent care requirements.

- *Chronic illnesses often involve a multiplicity of physical, social, and psychological problems.*

  - Treatment of a specific facet of a chronic condition often triggers additional problems. For example, medication for one disease may contribute to the deterioration of otherwise non-diseased organs.

  - Chronic diseases are intrusive on the lives of patients and their family and social relationships. The illness and/or the treatment, itself, can impede activities of daily living and give rise to individual loss of control, social isolation, and/or depression.

  - As a result, long-term illnesses tend to multiply, making management of the patient's total condition more difficult.

- *Chronic illnesses require a wide variety of services.* Since chronic illnesses typically affect several areas of personal functioning, a range of services, as well as a systemic approach to the coordination of patient care, is needed.

  - The modern medical climate is geared to reliance on high technology.

  - Even in high-tech society, chronic illnesses are labor intensive.

- *Chronic illnesses are costly.* The costs of long-term illness are not only physically and social-psychologically stressful, but also economically draining.

  - Multiple services are required over long periods of time; the cumulative total cost of such services can become astronomical.

  - Many chronic care services are not covered by public or private funding.

  - Additionally, chronic illness may involve "opportunity costs" to family and/or friends as they assume caregiving responsibilities.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Definition of Chronic Care • Intervention to offset functional losses resulting from chronic illness or injury. • Intervention to: - Prevent impairment - Avoid disability - Offset consequences of a handicap - Promote or maintain wellness.	*Chronic care* can be defined as: "An intervention on behalf of a person who has chronic illness in order to offset the functional losses that result from the illness or injury. The intervention may be introduced to prevent an impairment, to avoid a disability, or to offset the consequences of a handicap." [Koff, 1988, p. 21] • There are many options for intervention in terms of the *timing of the intervention* (at what particular point in the trajectory of the illness does one intervene?) and the *intensity of the intervention.* • Some intervention activities may be undertaken in an effort to promote or maintain wellness; such intervention should be considered an appropriate part of chronic care. • Chronic care is not just medical care. Optimally, it is a comprehensive response to the needs of the total individual -- this requires reorientation of providers' perspectives from emphasis on treatment of disease to emphasis on enhancing the individual's ability to function. • Chronic care should support physical, social, and psychological functioning, since these areas are interdependent. • The individual's ability to function, not just the diagnosis of disease, should determine the nature of service requirements. According to the American Health Planning Association, the major objective of a long-term care system is to develop a *continuum of care* that constitutes a wide spectrum of services and facilities to provide any level of care needed by a consumer, and to have other levels of care available as these may be needed.
Overhead: Objectives of Continuum of Care • Rehabilitation • Maintenance • Prevention • Protection • Prolonged Longevity	Such a continuum includes both medical and social services designed to meet the needs of elderly individuals in terms of: • *Rehabilitation* -- restoring the individual to some previous level of functioning that can be sustained. • *Maintenance* -- ensuring the maximum possible independence of an individual at all times, even if there are limitations on activity or deterioration of functions.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• *Prevention* -- slowing of deterioration or anticipating acting on medical and social concerns that are avoidable before they occur. • *Protection* -- providing humane care for persons who are functionally and permanently dependent; assuring death with dignity for those in the dying process. • *Prolonged longevity* -- providing those services that are necessary to maintain life.
Overhead: Basic Principles of a Long-Term Care System • It must be comprehensive. • It must provide cost-containment incentives. • It must provide service delivery without financial impoverishment. • It must ensure access to services, without discrimination, based upon health care needs.	Ideally, a long-term care system should include four basic elements: • *It must be comprehensive.* The system must include a full range of health and social services, covering the chronic care continuum from home- and community-based care to institutional care. - It must also include health promotion/disease prevention and restorative services, as well as treatment and illness management. - Long-term care services must be linked with other health and social services, as well as with hospital and physician services. • *It must provide cost-containment incentives.* The system must be structured to: - Keep costs at a reasonable level. - Prevent inappropriate use of services. - Promote appropriate utilization levels. • *It must provide service delivery without financial impoverishment for those seeking care.* The system must contain a financing mechanism that provides insulation from impoverishment to individuals who need long-term care, as well as permits combining private and public resources to afford protection for individuals before they become ill.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• *It must ensure access to services, without discrimination, based upon individual health care needs.* Individuals who need services must not be denied access regardless of financial ability or other characteristics. Long-term care services are predominately used by older persons, but they must be accessible to those individuals, regardless of age or disability, who require chronic care.
Overhead: Barriers to LTC/Chronic Care • Lack of awareness of available services. • Rejection of services. • Financial obstacles. • Gaps in the spectrum of available services.	Optimally, aging individuals would be able to access appropriate medical and other support services as needed. However, several barriers to achieving these goals currently exist (Pfeiffer, 1988). • *Lack of awareness of available services.* - A large number of older people and their families, as well as health care providers, are unaware of local and/or national resources and services that would mitigate against institutionalization. - In the absence of information about support services, the elderly and/or their families often struggle to provide care without outside assistance until the burden becomes excessive, and a reluctant decision to rely upon nursing home institutionalization is made. - Channels that link service utilizers need to be evaluated to see what influences whether or not the elderly are aware of services available in the community (Henninger, et al., 1986): -- Doctors are seen as playing a central role in this linkage (either as gatekeepers, mediators, or boundary spanning agents). -- Since the visibility of doctors is often higher than that of other professionals, the elderly often broach health/ functioning difficulties with a physician first. -- As a result, not only do physicians distribute services among patients, they also distribute patients among the services. -- Physician familiarity with available services is critical, since physicians' lack of knowledge of existing services affects both referral rates and service utilization rates.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	-- The Henninger study showed that doctors knew more about in-home than out-of-home (aging network) community services. -- An earlier study (Krout, 1985) showed that doctors were less familiar with social services than with medical services; while the elderly were less familiar with medical services than with non-medical services.
Handout: Information and Referral Services	- It is important for all caregivers (informal and formal) to know that most communities have senior information and referral services. (The number should be listed in the phone book.)
	• *Rejection of Services*:
	- Sometimes the elderly and/or their family members refuse to accept care. -- Rejection of services may be viewed as proof of ability to independently function unassisted. -- Sometimes the elderly are afraid to seek help because they fear that assistance will lead to loss of control (e.g., will result in recommendations of institutionalization).
	- Often such individuals request assistance only after a crisis has unalterably precipitated extreme need; e.g., when insistence on doing without needed services has resulted in malnutrition, a broken bone suffered in a fall, or some other impediment to independent functioning.
	- These individuals (particularly, the oldest old who may have the lowest health IQs) could benefit from the intervention of a social worker, ideally, before a crisis develops.
	- As it is currently structured, the Medicare/Medicaid system places the responsibility for initiating care on the elderly themselves, and they aren't prone to do that (Besdine. 1979):

-- Older people really need a system that will generate appropriate medical care, as well as cover the costs of needed care.

-- An early warning system is needed to identify people with unmet needs.

-- Community outreach to identify those at "high-risk" is another essential element of the system; volunteer networks often can assist with such community outreach initiatives.

- *Financial obstacles*:

- Long-term care is expensive.

  -- Currently, the average cost of nursing home care is $24,000 per year.

  -- Skilled home care costs range from $15 to $35 per hour.

- Health insurance, Medicare, and Medicaid cover some chronic care service expenses, but often not as much as people expect or need.

- According to a House Select Committee on Aging staff analysis, more than 200 million Americans are underinsured for long-term care, often because they are not aware of Medicare's exclusions.

  -- Remember, Medicare is primarily designed to cover acute, not chronic, care.

  -- Medicaid does cover long-term care, but only if the individual's income is very low. Unfortunately, many people "spend down" most of their income and assets to become Medicaid-eligible.

- Furthermore, Medicaid eligibility does not ensure that needed care will be provided; for example, some nursing homes will not care for patients whose treatment/care costs will be covered by Medicaid (and this can occur even when the individual has been a private-pay patient whose depletion of resources necessitated reliance on Medicaid).

- Low-income minority group members are less likely to receive the benefit of entitlement programs because of the cost of co-insurance, eligibility and enrollment procedures, and out-of-pocket medical expenses (Petchers and Milligan, 1988).

  -- Nationwide in 1982, 9% of Blacks were not covered by health insurance.

  -- Even those who were covered reported psychological distress about the high cost of medical care and the lack of money for out-of-pocket expenses as the chief reason for failing to seek medical assistance.

  -- Minority elderly are less likely to purchase private insurance; out-of-pocket expenses are a significant burden because they consume a substantial amount of available income.

• *Gaps in the continuum of care*:

  - A continuum of chronic care is the result of a deliberate integration of health and social services, each having varying elements responsive to the multiple and diverse needs of a chronicically ill person and members of that person's family.

  - Gaps in the continuum of care may be the result of a shortage of services or of a spectrum of available services that are mismatched to the needs of the elderly population.

  - Gaps in the system may also be associated with fragmentation and depersonalization of services (Petchers and Milligan, 1988):

    -- Although health care facilities were regularly available to a population of Black urban elderly, the lack of regular physician services at the health care location was found to be a major cause of dissatisfaction and a barrier to comprehensive care.

    -- Not seeing the same doctor impeded effective communications and compounded patients' lack of trust in the medical community.

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INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (25 minutes)	MODELS FOR LONG-TERM/CHRONIC CARE
4. Describe the models for long-term/ chronic care, including the range of services that are appropriate to a continuum of care.	Historically, care in the home and community, rather than in institutional settings, has been the traditional form of care for most elderly and disabled persons, both in the U.S. and worldwide. • The emergence of general hospitals, mental hospitals, nursing homes, and other institutional environments is a relatively recent phenomenon in human history; and, it has had a major impact on public spending for health care. • Given the costliness of institutional care, the public policy pendulum has begun to swing back in favor of emphasizing alternatives to institutionalization.
Overhead: Reasons for a Continuum of Chronic Care • Patient needs change over time -- declines in health may be followed by improvements. • Trajectory of illness is uncertain, and requires flexibility. • Family needs for support change over time. • Choice of services should be matched to patient needs. • Minimize fundings disruptions through coordination of resources.	A coordinated continuum of chronic care is perceived as the most responsive structure for the delivery of services to the elderly (or others who live with chronic illness) for several reasons: • A change in health or competence associated with a particular time of life may not portend a progressive decline. Rather, there may be periods of improvement, as well as periods of decline. Any potential for enhanced functioning must be recognized and supported. - The availability of a coordinated continuum permits the quick reorientation of services to a more appropriate level of care in response to changing needs. - The possibility for improvement is also a strong argument against "spend-down" philosophies, which would leave individuals financially incapable of self care once their health had improved. • The erratic and uncertain nature of the trajectory of chronic illness requires flexibility and resourcefulness on the part of the system. This can best be provided through a coordinated continuum of care.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- Since chronic illness may introduce problems for the family and friends of the patient, long-term care services must be available and responsive to changing caregiver needs. This includes providing caregivers with support, care, and respite. A complex package of services may be needed -- and may need to be modified frequently. This flexibility is possible with a continuum.

- Depending upon the changing needs of the patient and the extent of intervention that will be required to maintain or restore function, prevent impairment, or treat illness, there are many chronic care services that could be introduced, and the continuum permits a display of all services and opportunities for choices based on the best fit.

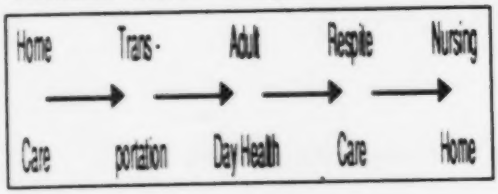
- Funding of chronic care services from public and private resources is complicated by confusing requirements that sometimes result in denial or disruption of needed services. The disruption can be avoided through coordination of the resources of the continuum (Koff, 1988).

There are several configurations of services, both theoretically and in actual practice, that are responsive to the needs of the aging.

A circular configuration, is seen as particularly appropriate because:

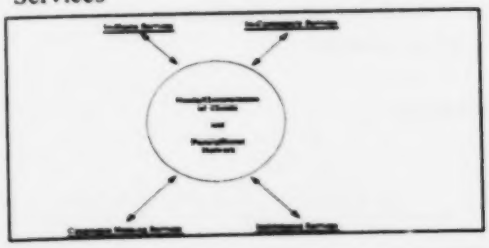
- It is client-centered.

Overhead: Linear Configuration



- Unlike linear models that account only for the individual's need to rely on a hierarchy of increasingly more treatment and support services (e.g., home care, transportation, adult day health, respite care, nursing home), a circular model underscores the need to respond with a variety of services in different locations as the client's health status and circumstances change.

Overhead: Circular Configuration of Services



- The circular model emphasizes the need to actually assess the client and the client's ability to function in his/her environment (including the nature of the individual's family and social support system), rather than relying solely on a medical diagnosis as the basis for referral to a range of services.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Core Service Package • Controlled access • Assessment • Care coordination	<u>The Core Service Package</u> The core service package includes: • Controlled access. • Assessment. • Care coordination.
Overhead: Controlled Access • Serves as a referral mechanism: - Appropriate level of care - Appropriate provider. • Requires service plan based on assessment. • Oversees entry into the system to prevent overservice and underservice.	*Controlled access* refers to the desirability of a single point of entry that (Koff, 1988): • Serves as a referral mechanism to ensure: - The appropriate level of care. - The appropriate provider(s) for the needed care. • Requires a service plan be developed based upon an individualized assessment that determines the appropriate array of services. • Oversees entry into the system to prevent inappropriate use of services -- overservice, underservice, or service use mismatched to client needs.
	"Measurement is essential to good geriatric care.... Any strategy for altering the health status of the elderly requires a technology for first assessing that health status and then detecting increments of progress" (Kane and Kane, 1981).
Overhead: Benefits of Assessments • Avoid inappropriate use of services • Prevent wasting resources • Avoid disabilities related to misdiagnoses • Improve diagnostic accuracy • Ensure appropriate placements • Provide data for planning services	*Assessment* can: • Avoid inappropriate use of health care services. • Prevent wasting scarce resources. • Avoid disabilities that result from misdiagnoses or inappropriate labeling of the elderly. • Improve diagnostic accuracy.

- Ensure appropriate placement of persons within the health care system.

- Contribute to planning efforts that analyze the aggregated data from individual assessments in order to determine need for services.

There are several methods for evaluating the health of an individual. These methods include (Hickey, 1980):

- Asking the individual herself or himself.

- Asking someone who knows the individual well or who is well trained in methods of observation.

- Conducting a series of observations and/or clinical tests on the person.

- All of these methods assume assessment along a temporal dimension by determining past history and behavior, actual health and present functional level, and future potential.

  - Past clinical history, for example, is an essential element in the evaluation of present physical condition, reserve capacity, probability of complications, and other relevant facts.

  - Past health behavior also helps to predict the individual's attitude toward his or her present condition and his or her future behavior in relation to medical care, such as compliance with dietary regimens and medication.

  - Less is known about the importance of the future dimension. Studies have suggested that sometime in late middle age, there may well be an important shift in how one views the future.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	- What role this particular perspective plays in one's health behavior and in one's acceptance of chronic conditions -- including significant disabilities extended over a long period of time -- has yet to be determined.
Handout: Representative Selection of Commonly Used Geriatric Rating Indices	There are many different techniques for assessing the overall health status of elderly individuals, as well as their functional capabilities.
Handout: The Activities of Daily Living Scale (ADL)	Two of the more frequently used indices are the Activities of Daily Living Scale (ADL) and the Older-American Resources Survey (OARS).
Handout: The Older-Americans Resources Survey	
	Care Coordination (case management) is designed to systematically allocate the community's health care resources to ensure meeting the individual's needs, while conserving the community's resources.
Overhead: Care Coordination • Enhanced quality of care through continuity of services. • Accessibility of range of services. • Appropriate level of care. • Systematic transition from assessment to service delivery. • Client advocacy. • Resource allocations pegged to client needs. • Efficient use of community resources. • Lower incidence of institutionalization.	The use of care coordination should ideally result in the following accomplishments (Koff, 1981, p. 177): • The quality of care will be enhanced as a result of the coordination and continuity of services; individuals will not "fall through the cracks." • Persons admitted into the system will have access to all the other services available within the system. • Clients will receive neither more nor less care than is needed, but will be provided care appropriate to their needs at any time; the care plan will be modified as required to respond to changing needs.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- The most appropriate level of service will be selected for each individual, and there will be a systematic transition point between the assessment process and effective service delivery.
- Client advocacy will be a legitimate coordination task, including seeking the appropriate service, identifying funding for the service, and following client progress as services are received.
- Health care resources will be allocated on the basis of clients' needs.
- Community resources will be used efficiently.
- The incidence of institutionalization will be reduced.

Activity. Brainstorm Session (5-10 minutes):

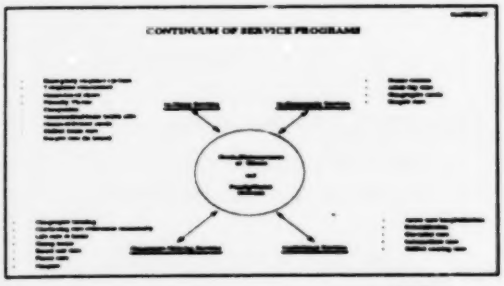
- Record responses to Question for Discussion on a flipchart.
- Summarize by distributing handout: Continuum of Services.

Question for Discussion:

What services are appropriate at each location:

- In-home services?
- In-community services?
- Congregate housing services?
- Institutional services?

Overhead: Detailed Circular Configuration of Services



Handout: Continuum of Service Programs

As you can see from this circular model, a wide range of services (with some overlap) is ideally envisioned.

- In-home services potentially include:
  - Emergency response systems.
  - Telephone reassurance.
  - Home-based chore.
  - Friendly Visitor.
  - Companion.
  - Homemaker/home health aide.
  - Home-delivered meals.
  - Skilled home care.
  - Respite care (in home).

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- In-community services might include the following:

  - Senior centers.
  - Adult day care.
  - Congregate meals.
  - Respite care.

- Congregate housing services possibly in place include:

  - Congregate housing.
  - Continuing care retirement community.
  - Life care at home.
  - Group home
  - Board and care.
  - Foster care.
  - Hospice.

- Lastly, institutional services might address:

  - Acute care hospitalization.
  - Rehabilitation\
  - Custodial care.
  - Intermediate care.
  - Skilled nursing care.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
ACTIVITY (60 minutes)	CONTINUUM OF SERVICE PROGRAMS

5. Discuss the appropriate role of public health professionals for each of the services that comprise the continuum of care.

Activity. Small Group Activity (40 minutes):

- Divide into groups of 2-3 people.
- Give each group 2-3 service program worksheets, selected from different settings (e.g., emergency response from in-home, hospice from congregate housing, respite care from in-community).
- Each group is directed to:

  (i) Discuss and record additional information regarding:

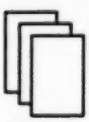
  - Program purpose
  - Basic services provided
  - Appropriate referral
  - Financing (cost and funding mechanisms)
  - Resources.

  (ii) Describe the role of public health professionals (e.g., licensing, oversight, direct care, etc.).

  (iii) Indicate whether their community has such a program -- why, why not, obstacles to success, innovative approaches, etc.

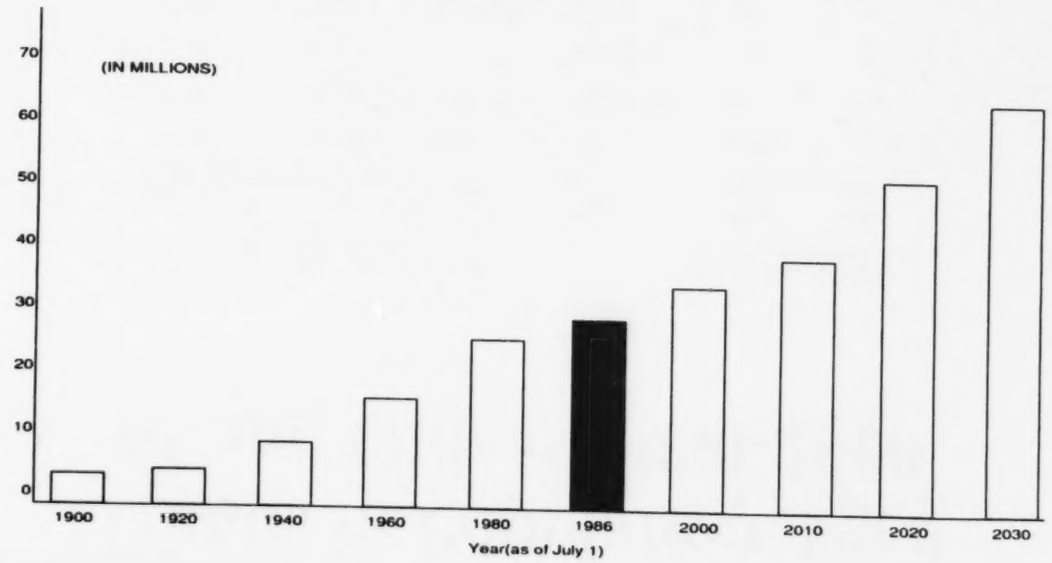
Small Group Activity

Handouts: Service Program Worksheets

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Activity. <u>Brainstorm Sessions (20 min.):</u> • Reconvene all participants. • Based upon the small group activity, have participants discuss the priority program areas that they feel public health needs to address in the near term. • Record responses on a flipchart.	Brainstorm Session
Handout: Care Management Guide 	
Optional Activity. <u>Discussion (15-20 min.):</u> Discuss whether the AARP Care Management Guide is accurate and helpful for participants' local communities.	
Handout: Resources Section (optional)	

IV. Overheads

Number of Persons Aged 65 and Older: 1900-2030



Source: American Association of Retired Persons, 1987. Copyright (1987). Reprinted with permission of the American Association of Retired Persons

Trends in Population Aged 65 and Older: 1980-2000

	Population (by Thousands)			Annual Rate of Change	
Age Group	1980	1990	2000	1980 1990	1990 2000
65-69	8,780.8	10,006.3	9,110.2	1.3%	-0.9%
70-74	6,796.7	8,048.0	8,585.8	1.7	0.6
75-79	4,792.6	6,223.7	7,242.2	2.6	1.5
80-84	2,934.2	4,060.1	4,984.6	3.3	2.0
85+	2,239.7	3,460.9	4,964.6	4.4	4.0
Total	25,544.1	31,799.1	35,036.3	2.2%	1.0%

Source: U.S. Bureau of the Census, 1983

Demand for Long-Term Care

- 6 million fractures annually sustained by the elderly.
- 2 million elderly stroke survivors require rehabilitation annually.
- 75% of all amputations are performed on the elderly.

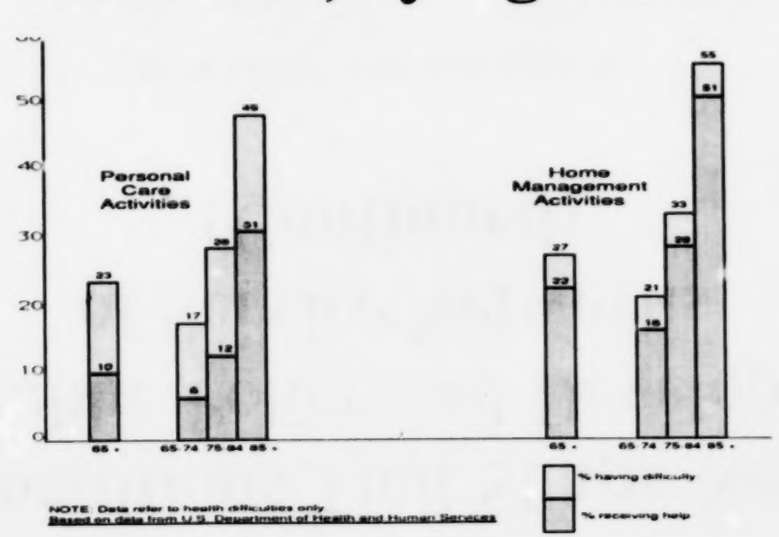
Conditions That Shape Need for Public Policy and Development of Service Networks

- Restrictions due to illness/injury increase.
- Need for functional assistance increases.
- Tendency to have at least one chronic condition; maybe more.

Conditions That Shape Need for Public Policy and Development of Service Networks (Continued)

- More likely to be hospitalized.
- More use of physician services.
- Health care expenditures increase.

Percent Having Difficulty and Receiving Help with Selected Activities, by Age: 1984



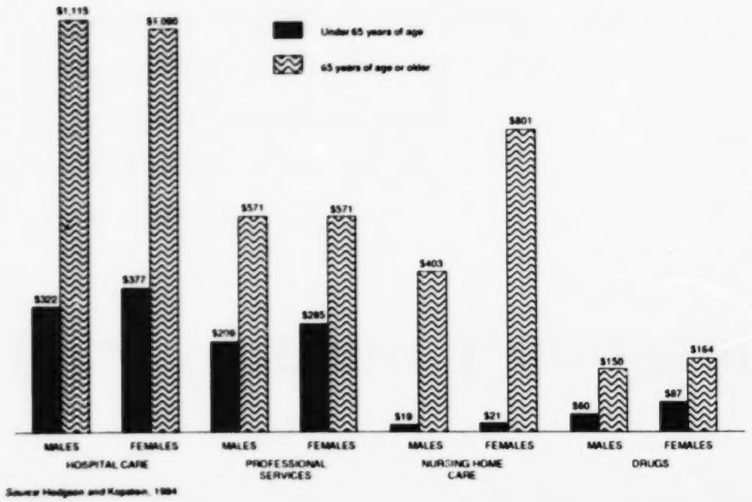
Source: AARP, 1987

Typical Chronic Conditions

- Arthritis (48%)
- Hypertension (39%)
- Heart Disease (30%)
- Hearing Impairments (29%)
- Orthopedic impairments (17%)
- Sinusitis (17%)
- Cataracts (14%)
- Diabetes (10%)
- Visual impairments (10%)
- Tinnitus (9%)

Source: AARP, 1987

Per-Capita Personal Health Care Expenditures (By Type of Care, Age, and Sex, 1980)



Source: Hodgson and Kopstein, 1984

Trends

- Increased size of elderly population, particularly 85+ segment.

- Smaller family size; increased family mobility.

- "Spend down" policies.

Impact Based Upon Population Projection for Next 50 Years

- Population of 65+ will increase 160%.
- Number of elderly with ADL limitations will triple.
- Short-stay hospitalizations will double.
- Nursing home residents will increase from 1.5 million to 5.2 million.
- 159% increase in personal health expenditures of the elderly.

Implications

- Decline in the range and quality of health care services.
- Increased demand for LTC, and diminished supply of LTC services.
- Less financial independence of elderly who must spend down.
- Increased reliance on institutional care.
- Unintended negative consequences from cost-containment initiatives.

Use of Services

- 78.5% No services
- 21.5% 1 or more services
- 11.4% 1 only
- 7.4% 2 only
- 2.7% 3 or more

System Flaws

- Too little known about how to organize/deliver comprehensive services
- Ineffective/inefficient responses to age-related needs of individuals/families
- Inflexible programs
- Culturally insensitive programs
- Gaps in services
- Insufficient promotion of programs
- Lack of agreement on what the elderly need

Geriatric Care

- Health maintenance/disease prevention
- Intermittant acute care
- Chronic care

Disease vs. Illness

- Disease refers to a specific diagnosis
- Illness refers to presence of a specific disease, as well as:
  - Individual's perceptions/behavior in response to disease
  - Impact on individual's psychosocial environment

Measurement of Functional Status

- Activities of daily living (ADLs) -- dressing, eating, bathing, toileting

- Instrumental activities of daily living (IADLs) -- shopping, cooking, housekeeping, fiscal responsibilities

Client-Centered Services

- Maximize individual independence.
- Provide least restrictive setting for care.
- Encourage client input to decision making.
- Respect individual differences.
- Serve chronically ill, as well as provide proactive treatment for those without chronic disabilities.
- Promote wellness.

Service Settings

- Span several locations:

  - Home
  - Community
  - Congregate Facilities
  - Institutional

- Encourage individuals to remain in their community.

- Include a spectrum of services to meet individual needs.

Critical Factors for Coordination of Service Delivery Programs

- Shared philosophy/goals.
- Uniform intake and assessment process.
- Complementary protocols for care coordination.
- Address needs of well elderly and frail elderly.
- Establish outreach activities.

Critical Factors for Coordination of Service Delivery Programs (Continued)

- Encompass array of services needed by heterogeneous cohort.
- Integrate range of medical, social, and psychological formal and informal support services.
- Cost-efficient service delivery.
- Structured case management approach.

Multidisciplinary Approach

- Professionals from many different disciplines work with the same individuals
- Each professional/discipline identifies discrete goals and treatment program

Interdisciplinary Team

- Team comprised of different disciplines
- Team members mutually identify and define a common treatment goal
- Each professional functions within his/her own professional domain to implement common treatment plan and achieve common goal

Transdisciplinary Team

Interdisciplinary team where members operate across disciplinary boundaries to ensure continuity of care

" In old age, there occur breathing and urinary difficulties, choked nostrils, joint and renal pains, paralysis... the more chronic maladies of the ears, eyes. ... Old age is more exposed to chronic disease, youth to acute illness."

Aurelius Cornelius Celsus
First Century A.D.

Elderly as an At-Risk Group

- The elderly, as a group, are at risk for chronic illness.

- Chronic illnesses have replaced infectious diseases as major health risks over life span.

- Risk of chronic illness increase with age.

Definition of Long-Term Care

"Long-term care consists of those services designed to provide diagnostic, preventive, therapeutic, rehabilitative, supportive, and maintenance services for individuals who have chronic physical and/or mental impairments, in a variety of institutional and noninstitutional health settings, including the home, with the goal of promoting the optimum of physical, social, and psychological functioning."

Source: DHHS

Nature of Chronic Illnesses

- Chronic illnesses cannot be cured.
- Chronic illnesses have uncertain prognoses.
- Chronic illnesses often involve a multiplicity of physical, social, and psychological problems.
- Chronic illnesses require a wide variety of services.
- Chronic illnesses are costly.

Definition of Chronic Care

- Intervention to offset functional losses resulting from illness or injury.

- Intervention to:

  - Prevent impairment
  - Avoid disability
  - Offset consequences of a handicap
  - Promote or maintain wellness.

Objectives of Continuum of Care

- Rehabilitation
- Maintenance
- Prevention
- Protection
- Prolonged Longevity

Basic Principles of a Long-Term Care System

- It must be comprehensive.
- It must provide cost-containment incentives.
- It must provide service delivery without financial impoverishment.
- It must ensure access to services, without discrimination, based upon health care needs.

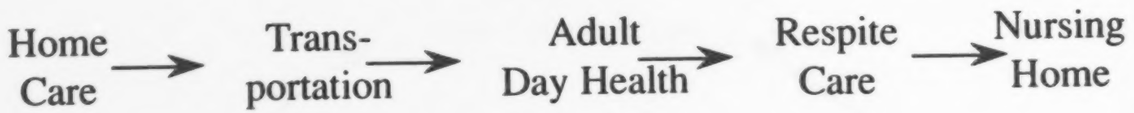
Barriers to LTC/Chronic Care

- Lack of awareness of available services.
- Rejection of services.
- Financial obstacles.
- Gaps in the spectrum of available services.

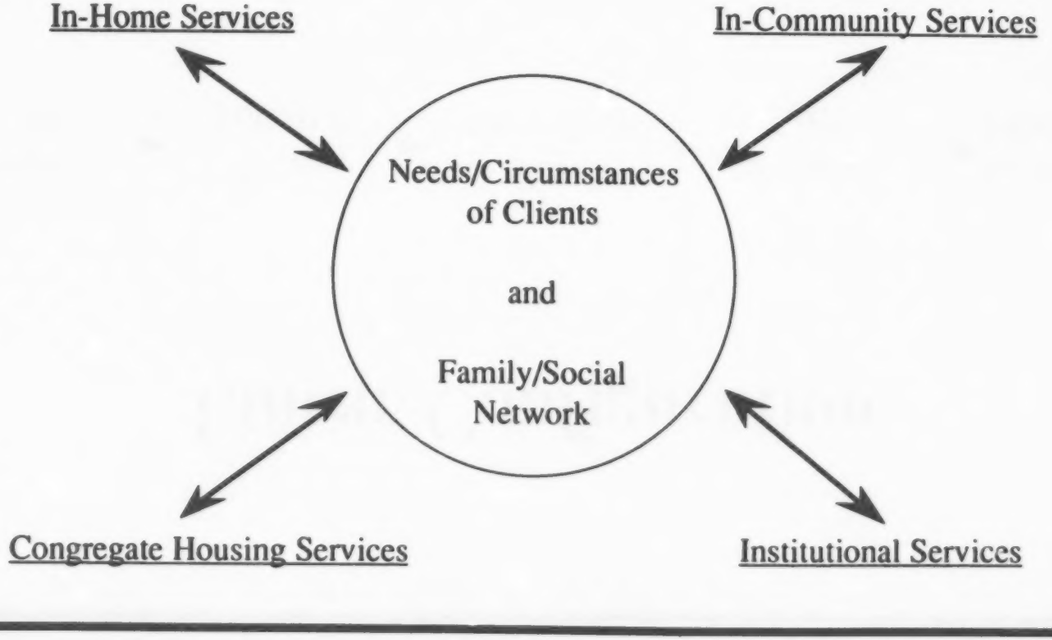
Reasons for a Continuum of Chronic Care

- Patient needs change over time -- declines in health may be followed by improvements.
- Trajectory of illness is uncertain, and requires flexibility.
- Family needs for support change over time.
- Choice of services should be matched to patient needs.
- Minimize funding disruptions through coordination of resources.

Linear Configuration



Circular Configuration of Services



Core Service Package

- Controlled access
- Assessment
- Care coordination

Controlled Access

- Serves as a referral mechanism:

  - Appropriate level of care
  - Appropriate provider

- Requires service plan based on assessment.

- Oversees entry into the system to prevent overservice and underservice.

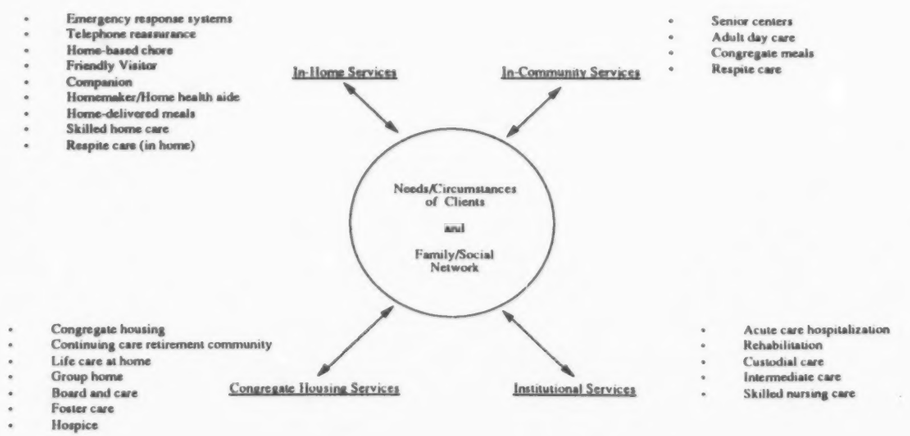
Benefits of Assessments

- Avoid inappropriate use of services
- Prevent wasting resources
- Avoid disabilities related to misdiagnoses
- Improve diagnostic accuracy
- Ensure appropriate placements
- Provide data for planning services

Care Coordination

- Enhanced quality of care through continuity of services.
- Accessibility of range of services.
- Appropriate level of care.
- Systematic transition from assessment to service delivery.
- Client advocacy.
- Resource allocations pegged to client needs.
- Efficient use of community resources.
- Lower incidence of institutionalization.

Detailed Circular Configuration of Services



- Emergency response systems
- Telephone reassurance
- Home-based chore
- Friendly Visitor
- Companion
- Homemaker/Home health aide
- Home-delivered meals
- Skilled home care
- Respite care (in home)

- Senior centers
- Adult day care
- Congregate meals
- Respite care

- Congregate housing
- Continuing care retirement community
- Life care at home
- Group home
- Board and care
- Foster care
- Hospice

- Acute care hospitalization
- Rehabilitation
- Custodial care
- Intermediate care
- Skilled nursing care

V. Handouts

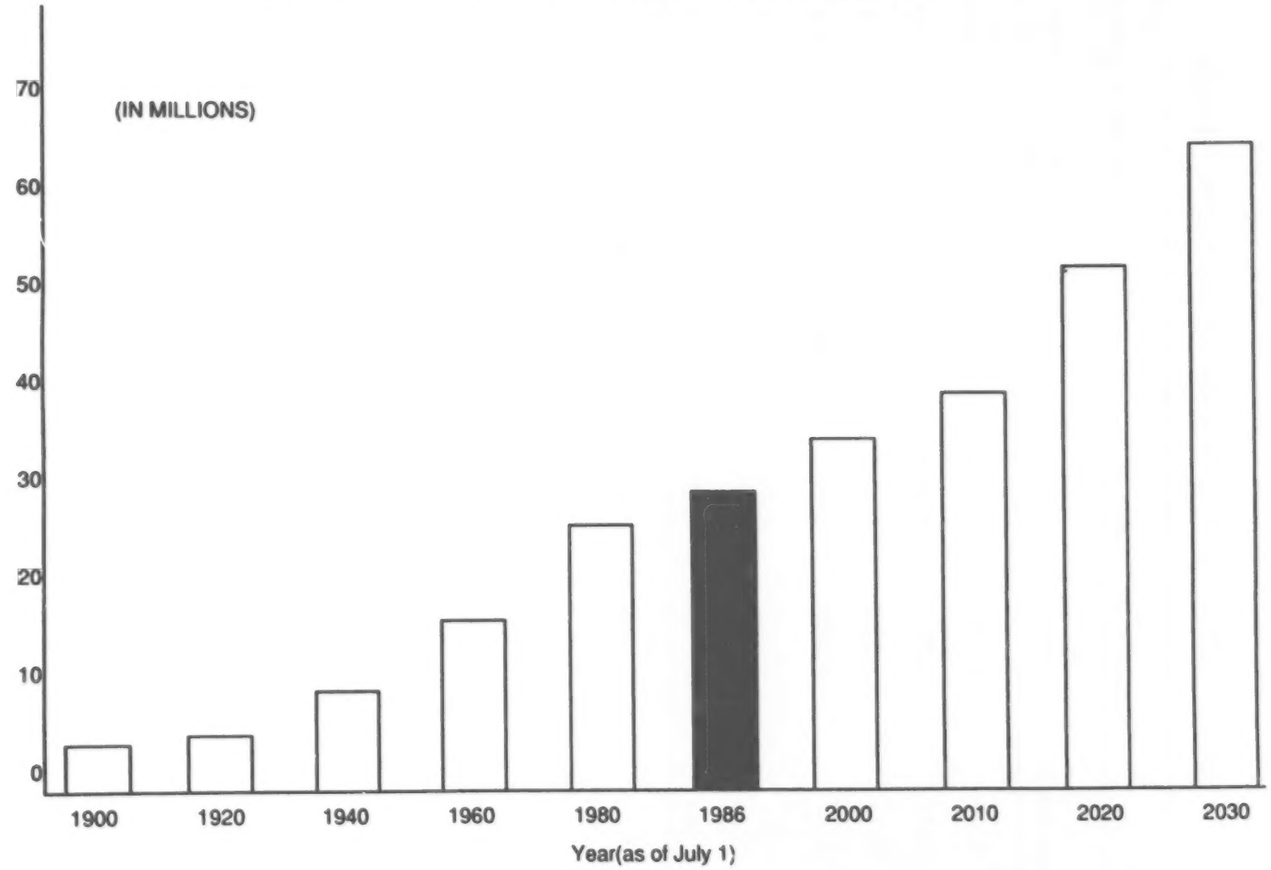
Handout

T/F FACT SHEET

Circle the Correct Response:

1.	The elderly consume 35 percent of all medications.	T	F
2.	Thirty percent of the U.S. health care budget is expended on the elderly.	T	F
3.	Life expectancy for today's 65-year-old is approximately 20 years.	T	F
4.	The 85-and-older age group is expanding at more than twice the rate of younger cohorts.	T	F
5.	Less than 50 percent of persons aged 65 and older have at least one chronic illness.	T	F
6.	Few of the acute-care patients aged 65 and older who were discharged from hospitals directly to nursing homes could have returned home if support services were available.	T	F
7.	Most of the existing pre-admissions screening programs that evaluate nursing home applicants prior to admission are designed to match the health needs of the individual to available nursing home resources and levels of care.	T	F
8.	More than half of all persons aged 65 and older have used home-maker services or home health aides.	T	F
9.	Most caregiving of the elderly, particularly the disabled elderly, is provided by formal institutions.	T	F

FIGURE 1. NUMBER OF PERSONS AGED 65 AND OLDER: 1900-2030



Source: American Association of Retired Persons, 1987. Copyright (1987). Reprinted with permission of the American Association of Retired Persons

TABLE 1. TRENDS IN POPULATION AGED 65 AND OLDER: 1980-2000

Age Group	Population (by Thousands)			Annual Rate of Change	
	1980	1990	2000	1980 1990	1990 2000
65-69	8,780.8	10,006.3	9,110.2	1.3%	-0.9%
70-74	6,796.7	8,048.0	8,585.8	1.7	0.6
75-79	4,792.6	6,223.7	7,242.2	2.6	1.5
80-84	2,934.2	4,060.1	4,984.6	3.3	2.0
85+	2,239.7	3,460.9	4,964.6	4.4	4.0
Total	25,544.1	31,799.1	35,036.3	2.2%	1.0%

Source: U.S. Bureau of the Census, 1983

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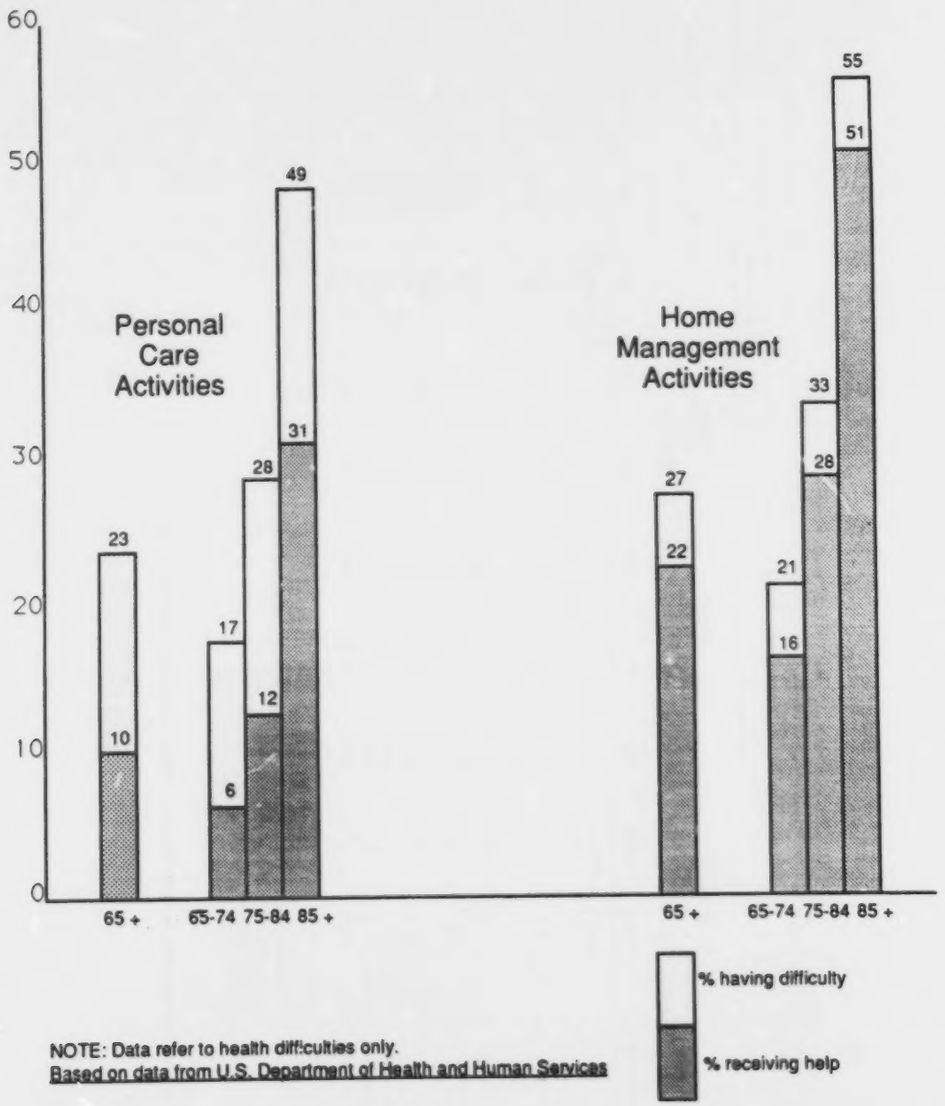
Figure 2
Percent Having Difficulty and Receiving Help with Selcted Activities, By Age: 1984



NOTE: Data refer to health difficulties only.
Based on data from U.S. Department of Health and Human Services

Source: AARP, 1987. Reprinted with permission of AARP.

Table 2. Physician Contacts, United States, 1983 and 1987

Characteristic	Physician Contacts		Place of Contact									
				Doctor's office		Hospital outpatient department (1)		Telephone		Home		Other (2)	
	1983	1987	Total	1983	1987	1983	1987	1983	1987	1983	1987	1983	1987
	Number per Persons		Percent distribution										
Total (3)	5.1	5.4	100.0	56.1	57.1	14.9	14.1	15.5	13.4	1.5	2.1	12.0	13.4
Under 15 years	4.6	4.5	100.0	54.7	57.9	13.3	12.8	20.5	17.1	*0.3	*0.7	11.2	11.6
Under 5 years	6.9	6.7	100.0	54.2	57.6	13.2	13.0	21.0	18.3	*0.5	*0.6	11.1	10.5
5-14 years	3.3	3.3	100.0	55.3	58.2	13.4	12.6	20.0	15.6	*0.1	*0.8	11.2	12.7
15-44	4.4	4.6	100.0	54.9	56.4	16.5	14.5	14.3	12.3	0.6	0.7	13.7	16.1
45-64	5.8	6.4	100.0	59.0	56.9	15.3	15.3	12.5	12.2	1.8	3.6	11.4	12.1
65 years and over	7.6	8.9	100.0	59.2	57.8	12.4	13.8	11.9	9.9	7.9	8.6	8.7	9.9
65-74 years	7.3	8.4	100.0	60.7	59.1	14.2	14.7	11.4	9.3	3.4	6.3	10.3	10.7
75 years and over	8.2	9.7	100.0	56.9	55.9	9.8	12.7	12.7	10.7	14.3	11.9	6.3	8.8

1. Includes hospital outpatient clinic, emergency room, and other hospital contacts.
2. Includes clinics or other places outside a hospital
3. Age adjusted

Source: National Center for Health Statistics . *Health United States, 1988*, 1989, p. 108

T/F Fact Sheet: Responses

Questions #1, 2, 3 are true.

#4 False.

The 85- and-older group is expanding at more than triple the expansion rate of younger cohorts; this is especially significant since this group is most in need of rehabilitation services.

#5 False.

More than four out of five persons 65 years of age and older have at least one chronic illness; multiple disabilities are common in the elderly.

#6 False.

Almost eight percent of acute care hospital patients aged 65 and older are discharged from hospitals directly to nursing homes. About half of these individuals could return home directly from the hospital if supportive services were available to provide for their continuing care needs. According to Firshein, each year 200,000 elderly could avoid nursing home care if they had access to the services of a geriatric evaluation unit.

#7 False.

In 1986, there were only 31 pre-admission screening programs designed to evaluate nursing home applicants prior to acceptance for admission. More than 2/3 of these were operated on a statewide basis, and most were run by the state Medicaid agency for the purpose of determining Medicaid eligibility. Three states also required mandatory screening for private-pay applicants in an initiative designed to direct the consumer to programs that would be responsive to individuals' needs, thus (i) reducing personal expenditures for long-term care and (ii) forestalling the need for public financial support.

#8 False.

In 1984, there were approximately 26 million people aged 65 and older in the U.S. who were not living in nursing homes or other institutions. Only a small percentage of these individuals had used in-home services, as shown in the table on the next page:

T/F Fact Sheet Responses (Continued)

Population Estimates and Percentage of Persons Aged 65 and Older Living in the Community Who Had Used Community Services During the Preceding Year: United States, January-June 1984.

Service	Population (in Thousands)	Use of Services (in Percent)
Total estimated population	26,290	100.0
Senior center	3,970	15.1
Senior center meals	2,057	7.8
Special transportation for the elderly	1,231	4.3
Telephone call check service	*	*
Home-delivery meals	497	1.9
Homemaker service	376	1.4
Visiting nurses	75	2.9
Home health aide	425	1.6
Adult day care	*	*

*Number or responses too small to permit national estimates.

Source: Stone, 1986.

#9. False.

Informal supports (spouses, friends, and relatives) provide valuable assistance. In 1982, relatives represented 84% of all caregivers, and provided 89% of all days of care for disabled elderly men living in the community.

Handout

Components of the Continuum of Care:

Questions for Debate

		Agree	Disagree
1.	Long-term care and chronic care are the same.	____	____
2.	The major component of long-term care is the nursing home.	____	____
3.	Families dump their relatives into nursing homes.	____	____
4.	Adult day care is an alternative to nursing homes.	____	____
5.	The Catastrophic Coverage Act of 1988 will increase resources for long-term care.	____	____
6.	Nursing home care is more expensive then home health care.	____	____
7.	Senior centers provide the same kinds of services as adult day health care.	____	____
8.	Wellness programs are not suitable for nursing homes, although they may be appropriate for home health care.	____	____
9.	There is minimal value in assessing patients in nursing homes since a "cure" is unlikely.	____	____
10.	Community recreation facilities should encourage all ages to interact, instead of establishing special facilities for the elderly.	____	____

* Adapted from Koff, ASA Workshop, March, 1989.

Handout

INFORMATION AND REFERRAL SERVICES: AN IMPORTANT FIRST STEP

Information and Referral services (I&Rs) provide exactly what their name implies: information on the types of assistance available in the community, and referrals to specific agencies and organizations. For those who are unfamiliar with long-term care services, an I&R can serve as an important beginning resource.

You can find an I&R by looking in your telephone directory's "Guide to Human Services," or in the Yellow Pages under "Social Service Organizations." The United Way sponsors more than 400 I&Rs and, together with the Alliance of Information and Referral Services, has developed operating standards for these services. For more information, contact:

The United Way of America
National Agencies Division
801 N. Fairfax Street
Alexandria, VA 22314

If no I&R exists in your area, similar assistance can be obtained from your Area Agency on Aging or your State Unit on Aging, which often operate toll-free information lines.

Source: Pfeiffer, *Taking Care of Today and Tommorrow: A Resource Guide for Health, Aging, and Long-Term Care*. Reston, VA: The Center for Corporate Health Promotion, 1989. Reprinted with permission.

Handout

REPRESENTATIVE SELECTION OF COMMONLY USED GERIATRIC RATING INDICES

Geriatric Rating Indices of Physical Conditions and Functional Levels

Instrument's Name	Author/Reference	Description (No. Items/Classification)
1. Functional Capacity of the Aged	Zeman (1947-1948)	A scale that categorizes patient's capacity for independent activity but provides no operational definitions (15).
2. Disability Scale	Meer & Krog (1964)	An easy, validated assessment of patient's physical impairment and self-care abilities (14).
3. Interdisciplinary Classification	Burack (1965)	Noncriterioned classification schema including physical diagnosis, functional abilities, goals, and therapy plan (128).
4. Barthel Index	Mahoney & Barthel (1965)	An easy, reliable measure of patient's self-care abilities (10).
5. Physical Self-Maintenance Scale (1965)	Lawton & Brody (1969)	A highly reliable, valid measure of six categories of physical self-care abilities (30).
6. Instrumental Activities of Daily Living (1965)	Lawton & Brody (1969)	A reliable, valid measure of independence focused mainly on the abilities of the community resident (31).
7. Index of Activities of Daily Living	Katz et al. (1963)	A validated short-answer questionnaire focusing on primary functions (6).

Source: Hickey T. *Health and Aging*. Monterey, CA: Brooks/Cole Publishing Company, 1980, pp. 68-71.
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REPRESENTATIVE SELECTION OF COMMONLY USED GERIATRIC RATING INDICES (Continued)

Geriatric Rating Indices of Physical, Behavioral, and Psychosocial Functioning

Instrument's Name	Author/Reference	Description (No. Items/Classification)
1. Biometric Evaluation	Burdock et al. (1960)	A reliable scale covering basic functioning and interpersonal areas (112).
2. Comprehensive Rating Scale	Krauss (1962)	Classification system that allows for considerable subjective differences (60).
3. Nurses Evaluation Form	Freeman & Murray (1966)	A global quick-answer questionnaire (12).
4. Stockton Geriatric Rating Scale	Meer & Baker (1966)	A valid, reliable scale focusing on many aspects of physical and emotional functioning (33).
6. Rapid Disability Rating Scale	Linn (1967)	A highly reliable and valid scale designed specifically for research use (16).
6. Geriatric Rating Scale	Plutchik et al. (1970)	A valid and reliable measure of functioning from minimal self-care to social behavior (31).
7. Parkside Behavior Rating Scale	Fine et al. (1970)	A scale measuring several areas of functioning including orientation, communication, and socialization (6).
8. PAMIE Scale	Gurel et al (1972)	A reliable and valid scale measuring physical status, self-care ambulation, and affect (76).
9. Parachek Geriatric Behavior Rating Scale	Miller et al. (1974)	A valid measure of physical condition, self care, and social behaviors (10).

Handout

REPRESENTATIVE SELECTION OF COMMONLY USED GERIATRIC RATING INDICES

Geriatric Rating Indices of Morale, Satisfaction, and Adjustment

Instrument's Name	Author/Reference	Description (No. Items/Classification)
1. Life Satisfaction	Neugarten et al. (1961)	A scale focusing on interests, apathy, self-esteem, mood, and so on (5).
2. Philadelphia Geriatric Morale Scale 1966	Lawton (1972)	A measure of self-perceived optimism, loneliness, anxiety or distress, and so on (22).
3. Morale Index (Kutner-Srole)	Cumming & Henry (1961)	A measure of self-perceived general level of morale (12).

Comprehensive Geriatric Health-Status Indices with Assessments for Service

1. Objective Evaluation of Physical Disability	Sokolow et al. (1962)	A classification system assigning values to medical, social, psychiatric, and vocational functioning resulting in a percent of a disability score (11).
2. Patient Classification for Long-Term Care	Jones et al. (1974)	A scale measuring self-care ability, as well as medical and demographic characteristics (14).
3. Older-Americans Resources Survey (OARS)/Multidimensional Functioning Assessment	Pfeiffer (1975)	A reliable, valid measure of economic resources, social resources, physical health, mental health, activities of daily living, and utilization of services (96).

THE ACTIVITIES OF DAILY-LIVING (ADL) SCALE

The Activities of Daily Living Scale was developed by Katz and his colleagues and has enjoyed wide use for several years (Katz, Ford, Moskowitz, Jackson, and Jaffe, 1963; Katz, Downs, Cask, and Gratz, 1970). The ADL scale focuses on quite specific and basic functional activities:

- Bathing
- Dressing
- Mobility
- Continence
- Feeding.

Ratings are made by both patient and observer.

The temporal dimension of the scale is limited to the present, which includes the two-week period prior to the evaluation. Actual performance, rather than potential capabilities, is measured, thus causing motivation and interest levels to play a key role in the assessment outcomes.

Items are rated on a 3-point scale, with each item yielding an independency/dependency score. The fact that the intermediate rating is viewed sometimes as dependent and other times as independent adds a subjective component to the final scoring. It should be noted, however, that the weightings of the different functions (bathing, dressing, and so forth) and their interrelationships require further research and development.

The ADL scale is an efficient and easy instrument to administer. It is easy on the patient -- it is brief, concise, and nonthreatening in terms of causing fatigue or anxiety. It provides a good assessment of basic functional level of those activities that are important for predicting potential for rehabilitation, types of community services required, and the necessity for institutional care in the immediate or near future. The fact that the ADL scale does not need to be administered by a physician or other health professional further facilitates its use in clinical and research activities.

There are several disadvantages of the ADL as an index of functional status. The areas of functioning to which the instrument addresses itself are basic ones, yet they represent only a portion of an individual's overall functional capability. Motivational and psychosocial capabilities are not tapped, even where they might affect the activities that are measured; for example, refusal to perform a task is equated with inability. Mental-health status, orientation, and judgment are also not included in this scale. Consequently, a very confused person who can still care for himself or herself might well be rated very high. A further limitation is the absence of any measure of overall physical health and of an assessment of the etiology of present physical conditions. Thus, it is possible that two individuals with quite diverse clinical symptomatologies and equally dissimilar prognoses and who require different levels and intensities of treatment will score the same on the ADL index. Nevertheless, the ADL scale remains a useful tool within the bounds of these limitations.

Source: Adapted from Hickey, *Health and Aging*, Monterey, CA: Brooks/Cole Publishing Company, 1980, p. 71. Reprinted with permission.

THE OLDER-AMERICANS RESOURCE SURVEY (OARS)

The Older-Americans Resources Survey (also known as the Multidimensional Functional Assessment) was developed at Duke University (Pfeiffer, 1975). The OARS index is currently enjoying wide use, due to its basic assumption that one must take a fairly comprehensive approach when assessing the elderly. Also, it has been designed to permit comparison of individuals against summary data from an entire population. The OARS has two major goals. The first and most important is the measuring of social and economic resources, mental health, physical health, and activities of daily living, accomplished through the SEMPA scale. The second goal is the measuring of services received and self-perceived need for additional services.

The social and economic factors in the SEMPA scale include basic demographic information. The mental-health component of the index is fairly comprehensive in its coverage of basic mental-status factors of orientation and memory, measures of anxiety and depression, and information about life satisfaction and perceived mental health. The physical-health index attempts to identify various physical conditions and clinical symptoms, as well as information about the use of health services. The section on activities of daily living measures instrumental functioning (such as the use of the telephone and of public transportation), as well as basic personal self-maintenance capabilities.

The second major area of assessment included in the OARS instrument deals with use or projected use and need for 24 different generic services -- for example, transportation, personal-care services, nursing care, meal preparation, information and referral services, and legal and protective services. Following this assessment, ten additional questions are included as a reliability check on the subject's previous answers. These are designed to give a more precise picture of subjects whose answers might otherwise be incomplete or inaccurate. A second set of reliability questions is included to assess the quality of the interview and the interviewer's impressions of the subject.

The primary advantage of the OARS instrument is its comprehensiveness. Many areas are covered, including instrumental activities of daily living, which are not included in other scales. Social conditions and a broad array of mental-health issues are also included. Another important factor about this index is the emphasis it places on being able to quantify, and thus compare, results among individuals. The scoring is helpful in assessing an individual's physical and functional status, as well as his or her need for services. The questionnaire is well designed and carefully structured to yield meaningful answers. Moreover, the simple and clear language of the index facilitates its use by diverse interviewers after minimal training and preparation.

Source: Adapted from Hickey, *Health and Aging*. Monterey, CA: Brooks/Cole Publishing Company, 1980, p. 73. Reprinted with permission.

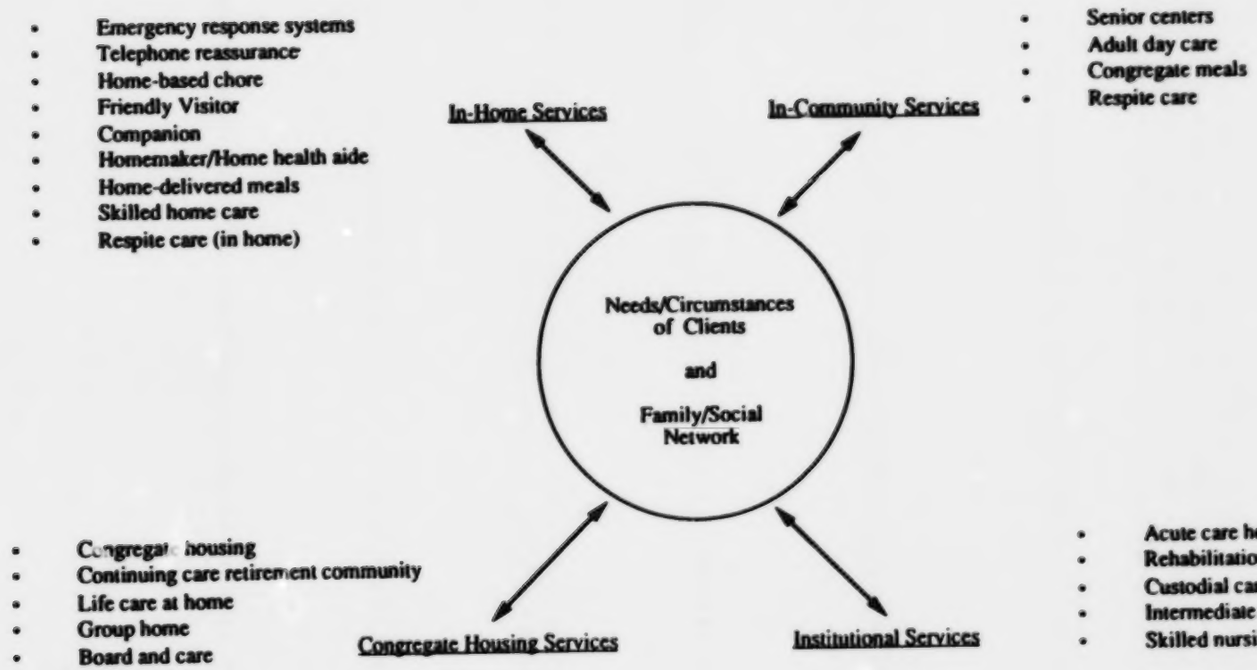
THE OLDER-AMERICANS RESOURCE SURVEY (OARS) (CONTINUED)

There are some disadvantages to the OARS. Despite the efforts made to yield easily quantifiable results, there are some important limitations in the comparability of factors within the instrument and in the overall comparability of scores between and among individuals. Although the instrument is fairly specific on the scoring of each individual item, the assignment of cumulative scores to each section is not very clear. Also, the meaning of scores in the intermediate ranges is not always evident. For example, the instrument makes the assumption that a midrange score of 3 in one section is the same as a score of 3 in another section. In actuality, however, impairments in various areas differ in relative importance to the individual, as well as in relation to the planning of services. Similar questions can also be raised about the comparability of composite scores on individuals within a large population. With the statistical possibility of 7776 different permutations of a final total score based on all items, the validity of total scores from large populations is questionable. In order to manage such a large number of numbers, one would be forced to take an average of them. Given the fact that averages are being taken within the internal factors, the result would involve "averaging the averages." This is a statistically inaccurate process. Also, given the way the instrument is designed and scored, it provides no basis for understanding the relationship between the functional level and expressed need for services or the relationship between self-reported/ interviewed statement of need and actual demand or use of services. Finally, like many other indices of health status, the OARS is completely present oriented. The scores do not provide any indication of expected movement or changes within the individual.

In general, however, the OARS is comprehensive and well designed in many ways, and it is an important contribution to the health-status assessment of the elderly. Moreover, it is a fairly representative index of a wide range of functional levels, since it includes elderly individuals ranging from those in very good conditions to those with extensive disability and poor functioning. It covers many important areas and seems to be useful on a general level, especially for matching people with services and for assessing their present needs. However, it is less useful as a research index or tool, than as an aid to placement or identification of needed services.

HANDOUT

CONTINUUM OF SERVICE PROGRAMS



- Emergency response systems
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- Home-based chore
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- Acute care hospitalization
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- Intermediate care
- Skilled nursing care

IN-HOME SERVICE WORKSHEET: TELEPHONE REASSURANCE PROGRAMS

The main purpose of telephone reassurance programs is to reduce social isolation through linking the individual with a scheduled telephone contact, who checks on the elderly person's health, safety, or other needs. Typically, the telephone network will notify significant support networks (family/ friends) and/or formal agencies such as physicians, police, social workers, in the event of a problem.

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

IN-HOME SERVICE WORKSHEET: HOME-BASED CHORE SERVICES

Home-based chore services permit older individuals to access home maintenance and/or repairs at minimal cost. This is often a crucial service since many elderly persons are living in homes that have aged along with them -- now representing a possible hazard due to poor lighting, uneven stairs, poor insulation against temperature extremes, etc.

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

IN-HOME SERVICE WORKSHEET: EMERGENCY RESPONSE SYSTEM

The objective of emergency resonse systems is to link older people with emergency services in the event of an acccident or medical problem. Fear of being alone, having an accident, or becoming ill threatens the independence of older people, often causing them to give up their homes. Unlike telephone reassurance programs that periodically check on elderly persons living alone, emergency response systems continuously link the individual to the outside world by means of a device that activates the user's telephone to connect with an emergency alarm system.

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals yis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

IN-HOME SERVICE WORKSHEET: FRIENDLY VISITING AND COMPANION SERVICES

Friendly visitation provides elderly individuals with a scheduled contact to provide social diversion and light assistance. Such companionship permits occasional release from isolation, boredom, and loneliness. Typically, friendly visitation is free or a nominal charge, while companion services provide additional assistance with instrumental activities of daily living (IADLs) and therefore, may involve additional payment.

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

IN-HOME SERVICE WORKSHEET: HOME-DELIVERED MEALS

Home-delivered meals are a service designed to provide nutritional meals to older individuals who are homebound and incapable of shopping or preparing meals. Such services often provide two meals daily, one of which typically includes hot entrees. Some these services are available only on a five-day-a-week basis, although some locales have home-delivered meal programs on week-ends, as well, or for emergency use (e.g., during snowstorms).

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

IN-HOME SERVICE WORKSHEET: HOMEMAKER/HOME HEALTH AIDE

Homemaker/Home health aides provide assistance with activities of daily living (ADLs), such as dressing and grooming, and also with instrumental activities of daily living (IADLs), such as light housekeeping and meal preparations.

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

IN-HOME SERVICE WORKSHEET: SKILLED HOME CARE

Skilled home care permits older adults who are suffering from chronic illness or who are recuperating from an episode of acute illness to access skilled nursing care or treatment from physical/occupational therapists, speech pathologists, and other specialized health professionals. Skilled home care is a desirable alternative to institutionalization for many older adults since it provides required treatment in the comfort and security of home, lending a sense of control and peace of mind. Home care permits older persons to maintain social involvement with family and friends, while preserving their sense of independence and security.

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

IN-HOME SERVICE WORKSHEET: RESPITE SERVICES

Respite care provides relief for a family that cares for a homebound older person so that the family may leave the home for several hours or even overnight. Respite care, therefore, not only addresses the elderly persons needs, but also those of the caregiver. As such, respite care also serves an important mental health function in reducing stress.

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

IN-COMMUNITY SERVICE WORKSHEET: SENIOR CENTERS

Senior centers serve as community focal points on aging -- not only do they support social interaction among older adults, the centers also provide access to services and activities that enhance the dignity of the elderly, encourage their independence, and strenghten their level of community involvement. Senior centers may offer any or all of a diverse array of services, including: education, information and referral, counseling, health care and health promotion, employment, recreation, and community action and advocacy activities.

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

IN-COMMUNITY SERVICE WORKSHEET: ADULT DAY CARE CENTERS

Adult day care is a community-based group program designed to meet the needs of functionally impaired adults in a structured, comprehensive setting that offers health, social, and related support services. Adult day care permits participants to remain in the community, while family and other caregivers can continuing caring for the impaired person at home on a part- rather than full-time basis.

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

IN-COMMUNITY SERVICE WORKSHEET: NUTRITION SERVICES--CONGREGATE MEALS

The Older Americans Act fostered the development of nutrition and socialization programs for the elderly, nationwide. Sometimes these services are offered in the context of a senior center, but they also may be associated with more comprehensive case management programs.

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

CONGREGATE HOUSING SERVICES WORKSHEET: CONGREGATE HOUSING -- "ASSISTED LIVING FACILITIES"

Congregate housing includes a variety of housing programs for the elderly that vary with respect to type of person served, services offered, cost, and sponsorship arrangements. In the main, assisted living facilities consist of housing (typically in an apartment-like facility) together with transportation, recreational security, and housekeeping services, as well as the possibility for some assistance with the activities of daily living. A major concern of assisted living facilities is related to the phenomenon known as "aging in place".

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

CONGREGATE HOUSING SERVICES WORKSHEET: BOARD AND CARE (FOSTER CARE) HOMES

Board and care homes, also known as group homes, provide shared living arrangements for one or more adults who are basically self-sufficient, but seek some service provided by the operator of the home. Foster care is a variation on the basic theme; an older person is taken into a home with the understanding that a certain level of care will be provided by the foster family.

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

CONGREGATE HOUSING SERVICES WORKSHEET: HOSPICE

Hospice provides palliative and psychosocial supportive care for terminal patients and their families. Emphasis is placed on symptom and pain control for the terminally ill individual, patient support before death, and family support before and after death of the ill member. The family constellation is considered as the unit for care; therefore, caring services extend through bereavement.

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

INSTITUTIONAL SERVICES WORKSHEET: SKILLED NURSING FACILITIES, INTERMEDIATE CARE FACILITIES, AND CUSTODIAL CARE FACILITIES

A nursing home is often able to provide the most responsive and intensive levels of chronic care, and therefore may be the preferred environment for some individuals. Nursing homes may offer specialized services that are very intensive or difficult to provide at home. At the present time, there are three major categories of licensed care in a nursing home setting: skilled, intermediate, and custodial. Skilled care involves medical, nursing, or rehabilitative services. Intermediate care is supportive care that does not require the degree of medical/nursing care considered skilled. Custodial care, also known as residential or personal, provides assistance with activities of daily living where the individual has minimal need for medical care assistance.

- Who can (or does) benefit from such services in your community?

- Does such a program operate in you community? Who implemented and/or administers it?

- How is it funded, or where would you go to seek funding for such a program?

- What special considerations need to be addressed with respect to furnishing such services to minority and/or rural population sub-groups?

- What is the appropriate role of public health professionals vis-a-vis such a service?

- In the absence of such services, what creative alternatives could be implemented?

Care Management Worksheet

Agree: 1 or 2*	A—My Relative	B—Services Needed	C—Readings**	D—Resources
____	. . . really needs to get out and do something	**Socialization/Volunteering**—Programs designed to provide an opportunity to socialize with peers or to offer service without compensation	**To Serve, Not to Be Served**; What Are You? I Am Old; **Join an AARP Chapter**	Nutrition sites, senior centers, day care, friendly visitors, senior companions, YMCA/YWCA, city recreation department, Retired Senior Volunteer Program, **AARP Talent Bank**
____	. . . can do light housecleaning but needs assistance with heavy tasks	**Chore Services**—Window washing, mowing lawn, roof repair, minor housing repair		Local aging social services, area churches or synagogues, fraternal orders, youth groups, neighborhood clubs
____	. . . has some legal matters that need attention	**Legal**—Assistance with matters pertaining to law	**Essential Guide to Wills, Estates, Trusts and Death Taxes**	Legal counsels for the elderly, local bar association, Legal Aid, adult protective services, banks
____	. . . is grieving over the death of a loved one	**Bereavement Support**—Dealing with the normal grieving process	**On Being Alone: Survival Handbook for Widows**	**AARP Widowed Persons Service**, THEOS, National Association of Military Widows
____	. . . cannot drive or use public transportation and taxicabs are too expensive	**Transportation**—Special transportation for older persons		Private transportation, handicapped transportation, Red Cross, churches or synagogues, city elderly transportation service

***Indicate whether this is a primary or secondary concern by marking 1 or 2** ****AARP Sources in bold**

Source: AARP. *Care Management Guide, Caregivers in the Workplace, 1987*

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Agree: 1 or 2*	A—My Relative	B—Services Needed	C—Readings**	D—Resources
——	. . . is unable to remain in his/her present housing	**Housing**—Special housing options are available to the elderly	**Housing Options for Older Americans; Your Home, Your Choice; Planning Your Retirement Housing; The Right Place at the Right Time**	Retirement community, public housing, foster home, intermediate care facility, nursing home, skilled nursing facility, house sharing, group homes, American Association of Homes for the Aged
——	. . . needs help with food preparation and/or housekeeping and/or laundry	**Homemaker Services**—Non-medical service to help an older person remain in the home	**A Handbook About Care in the Home;** Directory of Homemaker-Health Aide Services	Social service agencies, private homemakers, Red Cross, Visiting Nurses Association
——	. . . needs assistance with personal care (bathing, dressing, grooming, toileting)	**Home Health or Personal Care Aide**—Personal and basic health care provided by a specialist	**Healthy Questions;** Home Care	Private home health companies, Visiting Nurses Association, Red Cross, private nurses, public health nurses
——	. . . doesn't eat right	**Nutrition**—Nutritious meals provided at home or group setting	The Cookbook That Tells You How; Handbook of Nutrition, Health and Aging; **Eating for Your Health**	Home-delivered meals, Meals on Wheels, weekend meals programs, nutrition sites
——	. . . cannot be left alone during the day	**Friendly Visitors or Intermediate Care Facility**—Volunteers who visit with the elderly or a facility which provides constant supervision	Adult Day Care Annotated Bibliography	Adult day care, live-in attendant, social service agencies, foster homes

Agree: 1 or 2*	A—My Relative	B—Services Needed	C—Readings**	D—Resources
____	. . . needs special services for physical limitations and impairments	**Handicapped Services**	Developing Potentials for Handicaps; An Easier Way: Handbook for the Elderly and Handicapped; **The Gadget Book**	Disease-specific organizations, local office of physical disabilities
____	. . . has health care costs which are unbelievable	**Healthcare Cost Containment**—Reducing cost of quality healthcare	**Information on Medicare and Health Insurance**	Medicare-Social Security Office, Medicaid-Department of Human Resources, local insurance company
____	. . . is depressed/suspicious/angry all the time, just sits	**Mental Health**—Evaluation of psychological stability (also see Complete Geriatric Evaluation below)	Creative Mental Health Services for the Elderly; Aging and Mental Health	City Mental Health Department, geriatric social workers, crisis intervention unit, psychiatric hospitals, Alzheimer's Disease and Related Disorders Association
____	. . . is acting strange; could he/she be senile?	**Complete Geriatric Evaluation**—Medical psychological and social testing of older person	**The Myth of Senility: The Truth About the Brain and Aging**; The 36-Hour Day; **Coping and Caring**	Have *doctor* run evaluation of nutritional habits, health, medications and rule out possible illness. Have *mental health worker* rule out depression. Have *neurologist* run diagnostic tests. Dementia Resource Center, Alzheimer's Disease and Related Disorders Association

***Indicate whether this is a primary or secondary concern by marking 1 or 2** ****AARP Sources in bold**

Agree: 1 or 2*	A—My Relative	B—Services Needed	C—Readings**	D—Resources
____	. . . really needs 24-hour supervision even though he/she fights it	**Private Nurse Or Nursing Home**—Homes for the elderly offering 24-hour medical supervision	Family Involvement in the Nursing Home Experience; How to Select a Nursing Home; **The Right Place at the Right Time**	Private nursing organizations, local ombudsman, homes for the aged, local office on aging, hospital social services, American Association of Homes for the Aging
____	. . . has a terminal illness and wants to return home instead of dying in the hospital	**Hospice**—Medical and social services designed for terminally ill patients	**It's Your Choice: The Practical Guide to Planning a Funeral**; A Consumer Guide to Hospice Care	Visiting Nurses Association, Cancer Society, Hospice Association, local hospital social services department, local church or synagogue
____	. . . needs my assistance but lives in another area	**Long Distance Care Management**—Evaluation, coordination of services and monitoring of older persons living at a distance from caregiver	**Miles Away and Still Caring**	Local State Unit on Aging

Agree: 1 or 2*	I Sometimes Feel	B—Services Needed	C—Readings**	D—Resources
____	. . . overwhelmed: I have so many unanswered questions about aging and services for the elderly	**Information And Referral**—Method of providing knowledge of particular services and recommendations of places providing those services	**Caregiving, Helping an Aging Loved One;** Understanding Aging Parents; Caring for Your Aging Parents: A Practical Guide to Challenges and Choices	Local office on aging, area agency on aging, case manager for elderly, city information and referral
____	. . . I honestly need to share my feelings with someone who would understand	**Counseling/Support**—One-on-one consultation or meetings with other caregivers who share problems and coping skills	Support Groups for Caregivers of the Aged: A Training Manual for Facilitators; Self-Help Groups for Coping with Crises	Support group for caregivers of the elderly, pastoral counseling, city family services, most social service agencies offering counseling
____	. . . I need time for myself; caregiving is a 24-hour job	**Respite Care**—Substitute caregiver in or out of home who allows the family time away from caregiving responsibilities	Respite Care: An Emerging Family Support Service; Respite and Crisis Care	City or state aging department, respite organizations, religious groups, women's groups
____	. . . other family members are not helping enough	**Family Meeting**—Meeting of relatives to discuss responsibilities for elderly care	Aging Is a Family Affair; Family Caregiving and Dependent Elderly	Family services agencies, private therapist, case managers, social workers, family therapist
____	. . . my caregiving responsibilities are negatively affecting my work, personal life and health	**Physical Exam, Stress Management *and* Complete Medical Evaluation**—Technique designed to alleviate stress and/or increase coping skills	The Relaxation Response; Are You Tense?	Employee assistance personnel or employee counselor, office medical doctor or nurse, private therapist, stress clinics, **Caregivers in the Work Place**

***Indicate whether this is a primary or secondary concern by marking 1 or 2 **AARP Sources in bold**

Care Management Guide Suggested Readings

Socialization/Volunteering
State Communities Aid Association. *What Are You? I Am Old.* New York: State Communities Aid Association, n.d.

Homemaker Services
National Homecaring Council. *Directory of Homemaker, Home Health-Aide Services in the United States, Puerto Rico and Virgin Islands.* New York: National Home-Caring Council, 1982.

Home Health or Personal Care Aide
National Association for Home Care. *Homecare.* Washington, D.C.: National Association for Home Care, 1984.

Nutrition
Watkin, Donald M. *Handbook of Nutrition, Health and Aging.* Park Ridge, NJ: Noyes Publications, 1983.

Zaccarelli, Herman. *The Cookbook That Tells You How: The Retirement Food and Nutrition Manual.* Boston: Cahners Publishing Company, 1972.

Adult Day Care
National Council on the Aging. *Adult Daycare Annotated Bibliography.* Washington, D.C.: National Council on the Aging, 1982.

Handicapped Services
Russell, Martha and Bantarri, Marlene, eds. *Developing Potentials for Handicaps.* Minneapolis: The Minnesota Home Economics Association, 1978.

Sargent, Jean. *An Easier Way: Handbook for the Elderly and Handicapped.* Ames, Iowa: Iowa State University Press, 1981.

Mental Health
Butler, Robert and Lewis, Myrna. *Aging and Mental Health.* St. Louis: The C. V. Mosby Co., 1983.

Glasscote, R. and Gudeman, J. *Creative Mental Health Services for the Elderly.* Washington, DC: The Joint Information Service, 1977.

Alzheimer's Disease
Mace, Nancy. *The 36-Hour Day: A Family Guide to Caring for Persons with Alzheimer's Disease, Related Dementia Illnesses and Memory Loss in Later Life.* Baltimore, Johns Hopkins University Press, 1981.

Nursing Homes
McMeekin, Betty. *Family Involvement in the Nursing Home Experience.* Denton, Texas: North Texas State University Press, n.d.

U.S. Dept. of Health and Human Services. *How to Select a Nursing Home.* Baltimore: Healthcare Financing Administration, 1980.

Hospice Care

Coleman, Barbara. *A Consumer Guide to Hospice Care*. Washington, DC: National Consumers League, 1985.

Caregiving

Kenny, James and Spicer, S. *Caring For Your Aging Parents: A Practical Guide to the Challenges, the Choices*. Cincinnati: St. Anthony Messenger Press, 1984.

Lester, Andrew and Judith. *Understanding Aging Parents*, Philadelphia: The Westminister Press, 1980.

Support Groups

Liebermann, Morton. *Self-Help Groups for Coping with Crisis: Origins, Members Processes and Impact*. San Francisco: Jassey-Bass, 1979.

Rzetelney, Harriet and Mellor, Joanna. *Support Groups for Caregivers of the Aged:* A Training Manual for Facilitators. New York: Community Services Society, 1982.

Respite Care

Meltzer, Judith. *Respite Care: An Emerging Family Support Service*. Washington, DC: The Center for Study of Social Policy, 1982.

Project SHARE. *Human Services Bibliography Services: Respite and Crisis Care*, Rockville, MD: Project SHARE, 1981.

Family

Begmagin, V., and Hirn, K. *Aging Is a Family Affair*. New York: Thomas Y. Crowell, 1979.

Springer, Dianne and Brabaker, Timothy. *Family Caregiving and Dependent Elderly*. Beverly Hills: Sage Publications, Inc., 1984.

Stress Management

Benhamin, Ben. *Are You Tense?* New York: Pantheon Books, 1981.

Klipper, Miriam. *The Relaxation Response*. New York: Avon Books, 1975.

VII. Resources

• CAREGIVING

Administration on Aging
Office of Human Development

DHHS
330 Independance Avenue, SW
Washington, DC 20201
202/245-0724 General Information
202/245-0641 Publications

Provides information about social services, nutrition, education, senior centers, and other programs for older Americans. Offers *A Directory of State and Regional Agencies on Aging* that lists Area Agencies on Aging, which can help in finding local services to meet specific needs.

Children of Aging Parents

2761 Trenton Road
Levittown, PA 19056
215/945-6900

Starter packages for those interested in becoming caregivers. A "matching" service for people starting a support group. Workshops and printed material for the general community.

National Support Center for Families of the Aging

P.O. Box 245
Swarthmore, PA 19081

This network of support groups also provides referral to agencies and resources.

• DIABETES

American Diabetes Association

P.O. Box 25757 Duke St
Alexandria, VA 22313
800/232-3472
703/459-1500 (in Virginia)

Provides free printed materials, newsletter, health education information, and support-group assistance information.

National Institute of Diabetes and Digestive and Kidney Diseases (NIH)

1255 23rd St., NW, Suite 275
Washington, D.C. 20037
202/296-1138

Publications available.

• EYE CARE

American Council for the Blind

800/424-8666
202/393-3666 (in Washington, DC)

Offers information on blindness. Provides referrals to clinics, rehabilitiation organizations, research centers, and local chapters. Publishes printed resource lists.

National Eye Car Project Hotline

800/222-EYES

Provides information for senior citizens on how to get a free eye examination. Eligible persons must be American citizens or legal residents who have not been to see an ophthamologist in three years and who are in financial need.

Library of Congress National Library Services for the Blind and Physically Handicapped

800/424-8567
202/287-5100 (in Washington, DC)

Guides individuals incapacitated by short- or long-term illness to libraries that utilize the talking-book service. Provides a listing of books and magazines in Braille.

National Rehabilitation Center

800/34-NARIC
301/588-9284 (in Washington, DC)

Rehabilitation information service and research library. Information about assistive devices. Disseminates information about other rehabilitation-related services.

• HEALTH INFORMATION

National Health Information Clearinghouse

800/336-4797
301/565-4167 (in Washington, DC)

Provides a central source of information and referral for health questions. Staff members neither diagnose, nor recommend treatment for medical conditions. A service of the Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services.

National Self-Help Clearinghouse

City University of New York
Graduate Center, Room 620 N
33 West 42nd Street
New York, NY 10035

The National Self-Help Clearinghouse can refer people to sources of information on specific types of support groups and regional clearinghouses. The organization also provides guidelines for starting your own self-help groups.

• HEARING IMPAIRMENT

Federal Internal Revenue Service for TDD Users
800/428-4732
800/382-4059 (in Indiana)

Answers questions about the federal income tax, such as whether medical deductions are allowed for the cost of telecommunication devices for the deaf (TDDs), trained hearing-ear dogs, and sending deaf children to special schools. Accepts orders for the free publication, *Tax Infomation for Handicapped and Disabled Individuals*, and other free IRS publications.

Hearing Helpline

800/424-8576
703/642-0580

Provides information on hearing and the prevention of deafness. Information is mailed upon request. A service of the Better Hearing Institute.

National Hearing Aid Helpline

800/521-5247
313/478-2610 (in Michigan)

Provides information on hearing aids, and distributes a directory of hearing-air specialists certified by the National Hearing Aid Society.

Consumers Organization for the Hearing Impaired

c/o NAHSA
10801 Rockville Pike
Rockville, MD 20852

Hearing-impaired persons get support and assistance in adjusting to their situation. This organization promotes the use of professional services and audiologic devices.

SHHH: Self-Help for Hard of Hearing People, Inc.

7800 Wisconsin Avenue
Bethesda, MD 20814

This organization of the hearing impaired, their relatives and friends provides support, education, referrals and social activities. A bimonthly journal and chapter developmetn guidelines are available.

• HEART

Association of Heart Patients (AHP)

P.O. Box 54305
Atlanta, GA 30308

Heart patients and their families receive support and information. A monthly newsletter and a quarterly journal are published.

Mended Hearts

7320 Greenville Avenue
Dallas, TX

People who have had heart surgery and their families constitute the membership of this organization's more than 150 chapters. A quarterly newsletter is published, and a chapter development guide is available.

• HOSPICE

National Hospice Organization

1901 N. Fort Meyer Dr., Suite 902
Arlington, VA 22209
703/243-5900

Promotes standards of care in program planning and implementation for hospices, collects data for the purpose of demonstrating national trends in the hospice movement, encourages recognized medical and other health-education institutions to provide instruction in hospice care of the terminally ill and members of their families. Conducts educational and training programs. Maintains a library, and issues several periodic publications.

• HOUSING OPTIONS

American Association of Homes for the Aging

1129 20th Street, NW
Washington, DC 20036
202/296-5960

Brochure called *The Continuing Care Retirement Community: A Guidebook for Consumers, 1984.*

National Association for Home Care

519 C Street, NE
Stanton Park
Washington, DC 20002
202/547-7424

Monitors Federal and state activities affecting home care, and focuses on home health care issues. Publishes bi-monthly *Caring Magazine.*

National Citizen's Coalition for Nursing Home Reform

1424 16th Street, NW, Room L2
Washington, DC 20036
202/797-0657

Consumer advocacy on long-term care systems.

Nursing Home Information Services
National Council of Senior Citizens
National Senior Citizens Education and Research Center

925 15th St. NW
Washington, DC 20005
202/347-8800

Referral Center for Consumers of long-term care services. Offers information on nursing homes and alternative community and health services.

American Association for Continuity of Care

1101 Connecticut Ave., SW, Suite 700
Washington, DC 20036
202/857-1194

Health care professionals involved in discharge planning, social work, hospital administration, home care, chronic care, home health agencies, and continuity of care. Studies and researches health care issues, including those related to Medicare. Publishes bimonthly newsletter and annual directory.

American Federation of Home Health Agencies

1320 Fenwick Lane, Suite 500
Silver Spring, MD 20910
301/588-1454

Association of agencies providing therapeutic services, such as nursing and speech or physical therapy in the home. Lobbies with Congress and the Health Care Financing Administration. Helps members work with their fiscal intermediaries. Conducts seminars and publishes bimonthly gazette.

Home Health Services and Staffing Association

815 Connecticut Ave. NW, Suite 206
Washington, DC 20006
202/331-4437

Association of proprietary home care organizations that provide health care services in patients' homes and supplemental nursing services in institutions. Acts as a representative regarding Federal and state legislation affecting home care and supplemental nursing services. Works to develop a national health policy.

• HUNTINGTON'S DISEASE

Huntington's Disease Society of America

800/345-4372
212/242-2968 (in New York)

Gives information on Huntington's Disease. Provides referrals to physicians and support groups. Answers questions on presymptomatic testing.

• INJURY PREVENTION

The National Safety Council

444 N. Michigan Avenue
Chicago, IL 60611
312/527-4800

Accident prevention information.

R. Wood

Consumer Information Center
Pueblo, CO 81009

Saftey for Older Consumers: Home Safety Checklist available for $0.50.

• INSURANCE

American Council of Life Insurance
Health Insurance Association of America

800/635-1271
202/223-7780 (in Washington)

Answers general questions and send materials about life and health insurance. Does not handle complaints regarding insurance claims

• KIDNEY DISEASES

American Kidney Fund

800/638-8299
800/492-8361 (in Maryland)

Grants financial assistance to kidney patients who are unable to pay treatment-related costs. Also provides information on organ donations and kidney-related diseases.

• LIVER DISEASES

American Liver Foundation

800/223-0179
201/857-2626 (in New Jersey)

Provides information, including fact sheets, on liver diseases. Also makes physician referrals.

• LUNG DISEASES

Emphysema Anonymous

7976 Seminole Blvd., Suite 6
Seminole, FL 33542

This organization provides support and education to people with emphysema and other lung disorders. A quarterly newsletter, "Battling the Breeze," is published.

National Asthma Center

800/222-5864
303/398-1477 (in Colorado)

Answers questions about asthma, emphysema, chronic bronchitis, allergies, juvenile rheumatoid arthritis, and other respiratory and immune system disorders. Questions are answered by registered nurses or other health professionals. A service of the National Jewish Center for Immunology and Respiratory Medicine.

• MEDICARE/MEDICAID

DHHS Inspector General's Hotline

800/368-5779
301/597-0724 (in Maryland)

Handles complaints regarding fraud, waste, and abuse of such government funds as Medicare, Medicaid, and Social Security. Assists people who have been billed for services.

• MEDICINE USAGE

AARP Pharmacy Service

P.O. Box NIA
1 Prince St.
Alexandria, VA 22314
703/684-9244

Information on common prescription drugs, side effects, and cost differences between brand names and generic drugs. Series of leaflets, *Medication Information Leaflets for Seniors (MILS)*, that describes 350 prescription drugs.

American Pharmaceutical Association

2215 Constitution Ave., NW
Washington, DC 20037
202/628-4410

Goals to promote public health by establishing satisfactory drug standards.

Food and Drug Administration
Division of Regulatory Affairs
Center for Drugs and Biologics

5600 Fishers Lane
Rockville, MD 20857
301/295-8012

Responds to questions about drug approval, drug reactions, and other issues concerning new or approved medications.

• MENTAL HEALTH

Accreditation Council for Development of Services for Mentally Retarded and Other Developmentally Disabled Persons

4435 Wisconsin Ave. NW, Suite 202
Washington, DC 20016
202/363-2811

Nonprofit organization devoted to the improvement of services to the mentally retarded and otherwise developmentally disabled. Assesses agency compliance with standards (on request). Offers accreditaion to agencies, and workshops on improving standards. Publishes newsletter and *Standards for Services for Developmentally Disabled Individuals*.

Association for Retarded Citizens

P.O. Box 6109
Arlington, TX 76006
817/640-0204

Organization of parents, professional workers, and others interested in persons who are mentally retarded that works at local, state, and national levels to promote services, research public understanding, and further legislation on their behalf. Maintains library, and issues periodic publications.

Mental Retardation Association of America

211 E. 300 South Str., Suite 212
Salt Lake City, UT 84111
801/328-1575

Independent volunteer organization of associations of persons working in the field of mental retardation. Work for legislation on behalf of the retarded, public understanding, and the development of small-group homes.

National Alliance for the Mentally Ill

1901 N. Fort Meyer Dr., Suite 500
Arlington, VA 22209
703/524-7600

Alliance of self-help/advocacy groups concerned with the welfare of the severely and chronically mentally ill. Works to provide families and the public with sound information about mental illness. Monitors quality of treatment. Promotes research in the neurosciences and rehabilitation. Issues periodic publications.

National Mental Health Association

1021 Prince St.
Arlington, VA 22314
703/684-7722

Consumer advocacy group devoted to advancement of mental health and promotion of research to dicover new and better ways to treat and prevent mental illness.

• NUTRITION

American Dietetic Association

430 N. Michigan Ave.
Chicago, IL 60611
312/280-5000

Provides information on dietetics and nutrition.

President's Council on Physical Fitness and Sport

450 5th St., NW, Suite 7103
Washington, DC 20001
202/272-3421

Trains professionals to run health and fitness demonstration programs for the elderly. Provides brochures, films, and speakers.

National Diary Council

6300 North River Road
Rosemont, IL 60018
312/696-1020

Educational materials on nutrition, weight control, and osteoporosis.

National Digestive Diseases Information Clearinghouse

1255 23rd St., NW, Suite 275
Washington, DC 20037
202/296-1138

Service of National Institute of Diabetes and Digestive and Kidney Diseases (NIH). Staff members answer questions on these topics. Publications available.

American Society for Parenteral and Enteral Nutrition

8605 Cameron St., Suite 500
Silver Spring, MD 20910
301/587-6315

Nutritional support of patients during hospitalization and rehabilitation. Educates health care professionals at all levels and encourages the development of improved patient care. Compiles statistics and publishes journals and educational materials.

National Association of Meal Programs

204 E St., NE
Washington, DC 20002
202/547-6340

Association of agencies involved in delivery of nutritionally balanced meals to disabled and homebound elderly persons. Advocates community-based, home-delivered, and congregate meal programs; provides technical assistance in establishing new programs; develops organizational materials; and conducts training seminars. Publishes newsletter and technical bulletins.

National Association of Nutrition and Aging

P.O. Box 505
Frankfort, IN 46401
317/659-1907

Organization of directors and staff of home-delivered and congregate meal programs established to raise the standards of the profession among members; encourage communication between aging services programs, Federal agencies, and governmental bodies; and promote development of programs to support aging services programs. Has developed national standards for home-delivered and congregate meal programs. Issues several publications.

• ORGAN DONATION

The Living Bank

800/528-1971
713/528-2971 (in Texas)

Operates a registry and referral service for people wanting to commit their tissues, bones, vital organs, or bodies for transplantation or research. Informs the public about organ transplants and donations.

National Association of Patients on Hemodialysis and Transplantation

211 East 43rd St.
New York, NY 10038

People who have had kidney transplants or who are on hemodialysis receive support and education, as do their families and friends.

• OSTEOPOROSIS

National Osteoporosis Foundation

1625 Eye St., NW, Suite 1011
Washington, DC 20006
202/223-2226

Nationwide programs about osteoporosis and related research to educate professionals and the public.

• OSTOMY

United Ostomy Association

2001 W. Beverly Blvd.
Los Angeles, CA 90057-2491

Ostomy patients and their families share experiences and receive information and support. A quarterly publication and chapter development kit are available.

• PARKINSON'S DISEASE

National Parkinson Foundation

800/327-4545
800/433-7022(in Florida)
305/547-6666(in Miami Area)

Answer questions about Parkinson's disease. Provides written information on request.

• PLASTIC SURGERY

American Society of Plastic and Reconstructive Surgeons

800/635-0635
312/856-1818 (in Illinois)

Provides referrals to board-certified plastic surgeons. Also offers pamphlets describing procedures and realistic results.

• SAFETY

National Safety Council

800/621-7619

Provides information on safety. Posters, brochures, and booklets on all aspects of safety and accident prevention are available.

• SKIN

American Academy of Dermatology

1567 Maple Avenue
Evanston, IL 60201
312/869-3954

Mainly to educate dermatologists. Provides pamphlets and dermatological referrals to the public.

American Academy of Facial Plastic and Reconstructive Surgery

70 West Hubbard St., Suite 202
Chicago, IL 60610
312/644-2623

Education brochures about various types of cosmetic surgery.

Skin Cancer Foundation

245 Fifth Ave., Suite 2402
New York, NY 10016
212/725-5176

Health education materials on the importance of early detection and treatment of skin cancer.

• STROKE

Stroke Clubs
American Heart Association National Center

7320 Greenville Avenue
Dallas, TX 75231

Support, education, and social activities are available to stroke victims and their families in this organization's more than 300 clubs nationwide.

• SURGERY

National Second Surgical Opinion Program Hotline

800/638-6833
800/492-6603 (in Maryland)

Helps consumers locate specialists near them for a second opinion on non-emergency surgery. A service of the Health Care Financing Administration, U.S. Department of Health and Human Services.

• URINARY INCONTINENCE

Simon Foundation

800/23-SIMON

Provides information on incontinence. Written materials, including a quarterly newsletter and other publications, are available to the public.

Help for Incontinent People (HIP)

P.O. Box 544
Union, SC 29379
800/585-8789

Self help and patient advocacy group. Publishes the *Resource Guide for Continence Aids and Services* and the quarterly newsletter *The HIP Report*.

• WIDOWHOOD

Action

806 Connecticut Ave., NW
Washington, DC 20525
800/424-8580

A Federal agency that administers domestic and international volunteer programs, including the Retired Senior Volunteer Program, Foster Grandparent Program, and Senior Companion Project.

Displaced Homemaker Network

1411 K Street NW
Washington, DC 20025
202/628-6767

Individualized counseling services, support groups, employment/training seminars, vocational testing, and a "job club".

Widowed Persons Services
American Association of Retired Persons

1909 K St., NW
Washington, DC 20049
202/872-4700

Outreach program for newly widowed. Provides group sessions, publications about legal matters, volunteer opportunities, and other services.

B. AGING-RELATED RESOURCES

American Association of Retired Persons

1909 K Street, N.W.
Washington, DC 20049
202/872-4700

American Association of Homes for the Aging

1129 29th Street, N.W.
Washington, DC 20036
202/296-5960

American Bar Association Commission on Legal Problems of the Elderly

1800 M Street, N.W.
Washington, DC 20036
202/331-2297

American Coalition of Citizens with Disabilities

1012 14th Street, N.W., 901
Washington, DC 20005
202/628-3470

American Geriatrics Society

Ten Columbus Circle, Suite 1470
New York, NY 10019
212/582-1333

American Hospital Association Special Constituency Section of Aging and Long Term Care
840 Lake Shore Dr.
Chicago, IL 60611
312/280-6000

Elderhostel
80 Boylston Street, Suite 400
Boston, MA 02116
617/426-7788

American Society on Aging

833 Market Street, Suite 512
San Francisco, CA 94103
415/543-2617

Gerontological Society of America
1411 K Street, N.W., Suite 300
Washington, DC 20049
202/393-1411

Gray Panthers

311 S. Juniper Street, Suite 3601
Philadelphia, PA 19107
215/382-3300

Institute on Law and Rights of Older Adults
Brookdale Center on Aging at Hunter College

425 E. 25th Street
New York, NY 10107

National Council on the Aging
600 Maryland Avenue, S.W.
Washington, DC 20024
202/479-1200

National Council of Senior Citizens

925 15th Street, N.W.
Washington, DC 20005
202/347-8800

National Institute on Aging

9000 Rockville Pike
Bethesda, MD 20892

National Institute on Adult Daycare (NIAD)
(part of the National Council on the Aging)

National Institute on Community-Based Long-Term Care
(part of the National Council on the Aging)

National Caucus and Center on Black Aged
1424 K Street, N.W.
Washington, DC 20049

National Senior Citizen's Law Center
2025 H Street, N.W.
Washington, DC 20036
202/887-5280

OWL--Older Women's League
730 11th Street, N.W., Suite 300
Washington, DC 20001

United Seniors Consumer Corporative

1334 G Street, N.W., #500
Wahington, DC 20001

The Travlers Center on Aging
University of Connecticut Health Center
Farmington, CT 06032

C. Resources for Organizers of Older Volunteer Programs

• PRINTED MATERIAL

Effective Leadership in Voluntary Organizations

Brian O'Connell.
Walker and Company
720 Fifth Avenue
New York, NY 10019

1981. $5.95.

The Effective Management of Voluntary Programs

Marlene Wilson
Volunteer Management Associates,
279 South Cedar Brook Rd.
Boulder, CO 80302

1976. $6.95.

Elders and Vountarism, Technical Assistance notebook for Older American Volunteer Programs.

American Society on Aging,
785 Market Street, Suite 1114
San Francisco, CA 94103
Out-of-Print, but available in many libraries.

Keys to Making a Volunteer Program Work

Kathleen M. Brown
Volunteer Readership
1111 North 19th Street, Suite 500
Arlington, VA 22209

$6.50 plus $2.00 shipping and handling

Older Americans: An Untapped Resource

National Committee on Careers for Older Americans.
Academy for Educational Development, Inc.
680 Fifth Avenue
New York, NY 10019

19781. $8.50.

The Shape of the Things to Come: A Report from the National Forum on Volunteerism.

Volunteer Readership
1111 North 19th Street, Suite 500
Arlington, VA 22209

1980. $3.10 plus $1.00 shipping and handling.

To Serve, Not To Be Served

Is a guide for older persons considering a volunteer assignment, and is helpful in planning and recruitment.
AARP
Special Projects Section
1909 K Street, N.W.,
Washington, DC 20049

1986. Free

Recruiting, Training and Motivating Volunteer Workers

Arthur R. Pell
Pilot Books
347 Fifth Avenue
New York, NY 10016

1977. $2.50

The Volunteer Community: Creative Uses of Human Resources

2nd Edition
Eva Schindler-Rainman and Ronal Lippitt
University Associates
8517 Production Avenue, P.O. Box 26240
San Diego, CA 92126

19751. $9.50.

Volunteers

Armand Lauffer and Sarah Grordezky
(Sage Human Service Guides, Volume 5).
Sage Publications, Inc.,
275 South Beverly Drive
Beverly Hills, CA 90212

1977. $6.00.

• TECHNICAL ASSISTANCE

Association for Volunteer Administrators

P.O. Box 4584
Boulder, CO 80306

Citizens Involvement Information Network
VOLUNTEER- The National Center

1111 North 19th Street, Suite 500
Arlington, VA 22209

The Foundation Center

888 Seventh Avenue
New York, NY 10016

The Grantsmanship Cneter

1031 South Grand Avenue
Los Angeles, CA 90015

Independent Sector

1828 L. Street, N.W.
Washington, DC 20036

National Council on the Aging

600 Maryland Avenue, S.W.
West Wing 100
Washington, DC 20024

National School Volunteer Program

701 North Fairfax Street
Suite 320
Alexandria, VA 22314

Volunteer Insurance Service Association

4200 Wisconsin Avenue, N.W.
Washington, DC 20016

Volunteer Urban Consulting Group

300 East 42 Street
New York, NY 10017yy

Looking for Volunteers? Look Here First!

Volunteer Clearinghouse

Many of the volunteer positions filled around our nation are done so through some 350 centralized volunteer clearinghouses or voluntary action centers. Many of the centers are connected with senior programs, like ACTION's Retired Senior Volunteer Program (RSVP), that operates on local and national levels. These centers maintain a current list of voluntary opportunities -- and often, candidates for filling them -- and help match volunteers with needs.

For more information about such centers, or for guides to starting one in your community, write VOLUNTEER: The National Center, Suite 500, 1111 North 19th Street, Arlington, VA 22209.

You can determine if there is already a voluntary action center or volunteer clearinghouse in your community by looking in the white pages of your phone book..

Area Agencies on Aging

These regional governmental agencies often have information about voluntary programs involving older men and women. Contact the one nearest you for assistance if you are looking for older volunteers or would like to be one.

American Association of Retired Persons

With more than 23 million members, AARP is a wellspring of volunteers and volunteer opportunities. The AARP Volunteer Talent Bank identifies potential volunteers nationwide for referral to appropriate organizations with specific volunteer needs. For more information, contact the Volunteer Talent Bank at 1909 K Street, N.W., Washington, DC 20049.

For information on AARP chapters contact the area office that serves your location as listed on the next two pages.

Governors' Offices for Voluntary Service

Many states have a governor's office for volunteer groups and organizations. They can provide technical assistance and referral in many instances. Some also keep registers of volunteer trainers, speakers, and other leaders in the voluntary community. These offices are listed under state governmental services -- or may be located in your state capital. You can obtain their number from your operator.

The AARP Area Offices

Area I -- Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

823 Park Square Building
Boston, MA 02116
(617) 426-1185

Area II --- Delaware, New Jersey, New York, Pennsylvania

919 Third Avenue, 28th Floor
New York, NY 10022
(212) 728-1411

Area III -- District of Columbia, Kentucky, Maryland, North Carolina, Virginia, West Virginia

1133 20th Street, N.W.
Suite 610
Washington, DC 20036
(202) 728-4838

Area IV -- Alabama, Florida, Georgia, Mississippi, Puerto Rico, South Carolina, Tennessee, U.S. Virgin Islands

Cambridge Building
2965 Flowers Road, South
Suite 233
Atlanta, GA 30341
9404) 458-1491

Florida inquiries:
6580 - 34th Street, North
Pinellas Park, FL 33565
(813) 522-9461

Area V -- Illinois, Indiana, Michigan, Ohio, Wisconsin

2720 Des Plaines Avenue, Suite 113
Des Plaines, IL 60018
(312) 298-2852

Area VI -- Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

Suite 1401, Traders Bank Building
1125 Grand Avenue
Kansas City, MO 64106
(816) 842-3959

Area VII -- Arkansas, Louisiana, New Mexico, Oklahoma, Texas

700 University Tower
6440 North Central Expressway
Dallas, TX 75206
(214) 369-9206

Area VIII -- Colorado, Montana, Utah, Wyoming

709 Kearns Building
136 South Main Street
Salt Lake City, UT 84101
(801) 328-0691

Area IX -- Arizona, California, Hawaii, Nevada

4201 Long Beach Boulevard
Suite 422
Long Beach, CA 90807
(213) 427-9611

Area X -- Alaska, Idaho, Oregon, Washington

9750 Third Avenue, NE
Suite 400
Seattle, WA 98115
(206) 526-7918

D. AREA AGENCIES ON AGING

NATIONAL

National Association of Area Agencies on Aging
600 Maryland Ave., SW
West Wing, Suite 208
Washington, DC 20024
202/484-7520

STATE UNITS ON AGING

Alabama
Commission on Aging
State Capitol
Montgomery, AL 36130
205/261-5743

Alaska
State Agency on Aging
Older Alaskans Commission
Pouch C, Mail Stop 0209
Juneau, AK 99811
907/465-3250

Arizona
Aging and Adult Administration
P.O. Box 6123
1400 West Washington Street
Phoenix, AZ 85005
602/255-4448

Arkansas
Arkansas State Office on Aging
Donaghey Building, Suite 1428
7th and Main Streets
Little Rock, AR 72201
501/371-2441

California
Department on Aging
Health and Welfare Agency
1020 19th Street
Sacramento, CA 95814
916/322-5290

Colorado
Aging and Adult Services Division
Department of Social Services
717 7th Street, Box 181000
Denver, CO 80218-0899
303/294-5913

Connecticut
Department on Aging
175 Main Street
Hartford, CT 06106
203/566-7725

Delaware
Division on Aging
Department of Health and Social Services
1901 N. Dupont Highway
New Castle, DE 19720
302/421-6791

Source: Adapted from Pfeiffer, *Today and Tomorrow: Taking Care of a Resource Guide for Health, Aging, and Long-Term Care*, Reston, VA: The Center for Corporate Health Promotion, 1989

District of Columbia

District of Columbia
Office on Aging
1424 K Street, N.W.
Second Floor
Washington, DC 20005
202/724-5622

Florida

Program Office of Aging
Department of Health and Rehabilitation Services
1317 Winewood Blvd.
Tallahassee, FL 32301
904/488-8922

Georgia

Dept. of Human Resources
878 Peachtree Street, N.W.
Room 632
Atlanta, GA 30309
404/894-5333

Hawaii

Executive Office on Aging
Office of the Governor
State of Hawaii
335 Merchant Street, Rm. 241
Honolulu, HI 96813
808/548-2593

Idaho

Idaho Office on Aging
Statehouse, Room 114
Boise, ID 83720
208/3334-3833

Illinois

Department on Aging
421 East Capitol Avenue
Springfield, IL 62706
217/785-3356

Indiana

Department on Aging and Community Services
115 North Penn Street, Suite 1350
Indianapolis, IN 46204
316/232-7006

Iowa

Commission on Aging
914 Grand Avenue
Jewett Building
Des Moines, IA 50319
515/281-5187

Kansas

Department on Aging
610 West 10th Street
Topeka, KS 66612
913/296-4986

Kentucky

Division for Aging Services
Bureau of Social Services
275 East Main Street
Frankfort, KY 40601
502/564-6930

Louisiana

Office of Elderly Affairs
P.O. Box 80374
Capitol Station
Baton Rouge, LA 70898
504/925-1700

Michigan
Office of Services to the Aging
300 East Michigan
P.O. Box 30026
Lansing, MI 48909
517/373-8230

Minnesota
Board on Aging
204 Metro Square Building
7th and Robert Streets
St. Paul, MN 55101
612/296-2544

Mississippi
Council on Aging
301 West Pearl Street
Jackson, MS 39201
601/949-2070

Missouri
Office of Aging
Department of Social Services
Broadway State Office Building
P.O. Box 570
Jefferson City, MO 65101

Montana
Community Services Division
Department of Social and Rehabilitation Services
P.O. Box 4210
Helena, MT 59604
406/449-3865

Nebraska
Department of Aging
P.O. Box 85044
301 Centennial Mall South
Lincoln, NE 68509
402/471-2306

Nevada
Division of Aging Services
Department of Human Resources
505 East King Street,
Kinkead Building, Room 101
Carson City, NV 89710
702/885-4210

New Hampshire
Council on Aging
105 London Road
Building 3
Concord, NH 03301
603/271-2751

New Jersey
Department of Community Affairs
P.O. Box 2768
363 West State Street
Trenton, NJ 08625
609/292-4833

New Mexico
State Agency on Aging
La Villa Rivera Building
224 East Palace Avenue
Santa Fe, NM 87501
505/827-7640

New York
Office for the Aging
Agency Building 2
Empire State Plaza
Albany, NY 12223
518/474-5731

North Carolina
Division on Aging
Department of Human Resources
708 Hillsborough Street
Raleigh, NC 27603
919/733-3983

North Dakota
State Agency on Aging
Department of Human Services
State Capitol Building
Bismarck, ND 58505
701/224-2577

Ohio
Commission on Aging
50 West Broad Street
Columbus, OH 43125
614/466-5500

Oklahoma
Special Unit on Aging
Department of Human Services
P.O. Box 25352
Oklahoma City, OK 73125
405/521-2281

Oregon
Senior Services Division
Human Resources Department
Public Services Bldg., Room 313
Salem, OR 97301
503/378-4728

Pennsylvania
Department of Aging
231 State Street
Harrisburg, PA 17101
717/783-1550

Rhode Island
Department of Elderly Affairs
79 Washington Street
Providence, RI 02903
401/277-2858

South Carolina
Commission on Aging
915 Main Street
Columbia, SC 29201
803/758-2576

South Dakota
Office of Adult Services and Aging
Deiision of Human Development
Richard F. Dreip Building
700 N. Illinois Street
Pierre, SD 57501
605/773-3656

Tennessee
Commission on Aging
703 Tennessee Building
535 Church Street
Nashville, TN 37219
615/741-2056

Texas
Department of Aging
P.O. Box 12786
Capitol Station
Austin, TX 78711
512/444-2727
800/252-9240

Utah
Division of Aging Services
150 West North Temple
Room 326
Salt Lake City, UT 84103
801/533-6422

Vermont
Office on the Aging
103 Main Street
Waterbury, VT 05676
802/241-2400

Virginia
Office on Aging
101 North 14th Street
James Monroe Building, 18th Floor
Richmond, VA 23219
804/225-2271

Washington
Bureau of Aging and Adult Services
Department of Social and Health Services
OB-43G
Olympia, WA 98504
206/753-2502

West Virginia
Commission on Aging
State Capitol
Charleston, WV 25305
304/348-3317

Wisconsin
Department of Health and
Social Services
1 West Wilson Street, Room 686
Madison, WI 53703
608/266-2536

Wyoming
Commission on Aging
Hathaway Building, Room 139
Cheyenne, WY 82002
307/777-7986

VII. Readings

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The Gerontological Society of America

A 1986 national survey revealed 20 states with legislation and 7 states with bills in various stages of development. Although numerous financial oversights are mandated, states vary in how they define life care and regulate the document that residents sign, whether it is called a contract, lease, or agreement. Staff responsible for implementing the legislation revealed difficulties encountered.

Key Words: Life care, Continuing care retirement communities, Policy

Current Legislation Concerning Life Care and Continuing Care Contracts[1]

F. Ellen Netting, PhD,[2] and Cindy C. Wilson, PhD,[3]

The purpose of life care and continuing care legislation is to protect older consumers by overseeing the rapid expansion and guaranteeing the financial solvency of the retirement housing market. Given the increasing number of older people and the emphasis on long term care alternatives, states are responding to numerous changes in the retirement housing market.

Conceptually, life care can be traced to the sectarian convent tradition in which a person turned over all worldly possessions to support a community of believers. In turn, the community agreed to provide care to that person for a lifetime (Townsend, 1971). Many of the earliest life care communities were begun by religious or fraternal groups and designed to benefit persons of similar backgrounds. Other not-for-profit communities developed for older persons, regardless of their backgrounds. Until the last decade few for-profit developers were building communities to provide care in exchange for older persons' assets (Hartzler, 1984).

The life care concept has entered the modern world. There are many life care variations at a time when the housing market for elderly people is rapidly expanding and changing. Accurate data on the number of life care communities and their changing contractual forms are difficult to locate. *The Wall Street Journal* (cited in Lublin, 1986) reported that life care communities "geared toward affluent 'elder seniors' over 75 years old, has suddenly become the nation's hottest real-estate market. Dozens of developers as well as major hotel, hospital and nursing home chains, insurers, banks and even a big cosmetic maker — Avon Products, Inc. — are jumping into a field long dominated by nonprofit groups... Ambitious plans abound. Marriott Corporation, for instance, intends to build dozens of life care communities before the year 2000."

Defining life care is essential at a time when terminology is so various. Terms such as life care, continuing care, perpetual care, residence and care, and life lease are used interchangeably (Continuing Care, 1980). State statutes use life care and continuing care synonymously, when actually they are very different concepts (Netting & Unks, 1984).

Winklevoss and Powell (1981) explained the distinction between life care and continuing care communities. A life care community requires no additional charge for health services. Therefore, payment of a large upfront fee is probable. If health care is needed, the monthly fee remains the same, which does not mean that monthly fees do not increase, only that they do not increase because a resident requires a higher level of care. A continuing care community, on the other hand, requires the resident to pay some or all health care expenses. In their pioneering study of continuing care retirement communities, Winklevoss and Powell (1984) found that some communities referred to themselves as life care when actually they are continuing care facilities. They carefully define continuing care retirement communities (CCRC's) according to the following characteristics:

> A continuing care retirement community is an organization established to provide housing and services, including health care, to people of retirement age. At a minimum, the community meets each of the following criteria: 1) campus consists, at least, of independent living units; it may also contain health care facilities such as congregate living, personal care, and intermediate or skilled nursing care; 2) community offers a contract that lasts for more than one year and guarantees shelter and various health care services; and 3) fees for health care services are less than the full cost of such services and have been partly prepaid by the residents.

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[1]Presented in part at The Gerontological Society of America's 39th Annual Scientific Meeting, November 21, 1986, Chicago, IL. The opinions contained herein are the private views of the authors and should not be construed as official or necessarily reflecting the views of the Uniformed Services University of the Health Sciences or the Department of Defense.

[2]Assistant Professor, Arizona State University School of Social Work, Tempe, AZ 85287.

[3]Associate Professor, Uniformed Services University of the Health Sciences, Department of Family Practice, A1038, 4301 Jones Bridge Road, Bethesda, MD 20814.

Because long term care costs are high, residents of these facilities often attempt to buy services in a personal, intermediate or skilled health care unit should the need arise. Contracts vary regarding health services they include. Winklevoss and Powell (1984) found that fee schedules for health care vary tremendously across facilities. Some communities offered contracts covering all health care provided by the health center in the community, whereas other contracts covered a limited portion. They developed a variable, health care guarantee, which was defined as

> the degree to which costs for nursing care are covered by the continuing care contract and are shared among all residents ('pooled risk') so that fees paid by an individual resident are less than those paid on a fee for service basis.

Approximately half of life care and continuing care health care components were Medicare and Medicaid certified.

The contract between a resident who buys into this type of community reflects whether it is life care or continuing care. The contract probably specifies services provided and may indicate services not covered. This binding agreement, then, is an important document for it links the resident to the community for life. There are three basic contractual options, with many variations.

A basic rental agreement may be available for the person who is not certain she or he wants to invest in continuing care or for the person who cannot afford the upfront fee. This is a fee for service arrangement.

A second option may be the continuing care agreement that varies in how much health care is prepaid. Because a lease agreement is considered continuing care does not mean a certain amount of health care is prepaid. That amount varies, depending on the arrangement.

A third option may actually be a modified life care arrangement whereby a resident pays a large upfront fee in exchange for the provision of health care, as needed. This is really modified life care because traditional life care requires all assets be exchanged upfront, an arrangement that the industry discourages and which is prohibited in some states.

Confusion over contracts may stem from the use of terms that are not necessarily synonymous. One community may be called a life care facility, when, in fact, it is a continuing care facility. Some consumers may assume they are signing a life care contract, when they are actually buying into a continuing care community in which they are charged more if health care needs increase. Unfortunately, state statutes may compound the confusion because definitions of life and continuing care are not always clear. Determining what it means to sign a contract may be difficult, at best, and the implications of a misunderstanding are far-reaching.

Study Design

Two major sources of information were used in the present study: the content of the 20 state statutes that regulate life and continuing care communities and a survey of those persons responsible at the state level for implementing the laws. Copies of any statutes, or bills pending, concerning life or continuing care retirement communities were requested from all 50 states. No attempt was made to obtain administrative rules or regulations that expanded on the legislative mandate, although several states forwarded these, as well. Two sets of follow-up letters were mailed, resulting in a response rate of 94%. Subsequent informal follow-up with the three nonresponding states indicated that they did not have this type of legislation.

The 20 states with legislation were mailed a brief questionnaire, directed to the state department responsible for overseeing implementation of the law. Depending on the state, responsible departments included Departments of Aging, Health, Social Services, and Insurance. Two states (Georgia and Minnesota) delegated oversight responsibility to counties. The questionnaires were directed to staff responsible for life or continuing care communities. Staff from 16 states responded by filling out the questionnaire. Three were unable to complete the survey because their legislation had been enacted so recently that no implementation had occurred, and one did not respond.

The purpose of the survey was to explore the experience of staff responsible for implementation of life or continuing care legislation. First, staff were asked questions concerning how and why legislation had developed in their states. Second, they were asked who had lobbied for the legislation and when it had been enacted? Third, staff were queried about impressions regarding impact of the legislation. Fourth, they were asked to provide any insights they had developed regarding the legislation. Although these responses were subjective, it was believed that these persons could add to understanding of the statutes.

Content of the Statues

Background

In 1939 California was the first state to initiate life care legislation. The other 19 states with legislation enacted their original statutes between 1973 and 1986. States with legislation included Arizona (1977), California (1939), Colorado (1975), Connecticut (1986), Florida (1977), Georgia (1980), Illinois (1981), Indiana (1982), Kansas (1984), Maryland (1980), Massachusetts (1986), Michigan (1977), Minnesota (1980), Missouri (1982), New Jersey (1986), New Mexico (1985), Pennsylvania (1984), Texas (1981), Virginia (1985), and Wisconsin (1983). States with bills in progress or considering legislative action were Arkansas, Ohio, New York, North Carolina, Oregon, and Washington. Maine and Tennessee have the subject under study. State statutes vary widely in purpose, coverage, implementation agencies, certification or registry requirements, disclosure provisions, and contract contents.

Purpose of Statutes

The purpose of state statutes is to regulate the types of facilities that offer contracts for life or long-term care to older persons. Changes in the housing industry are reflected in the names of the various acts. Four states regulate life care; two states regulate both life care and continuing care; one state regulates retirement communities, and the remaining thirteen regulate continuing care contracts and communities. Florida, for example, amended its legislation in 1983 to delete references to life care and to replace them with continuing care.

It appears that new enactments do not use the term life care contract, but refer to life lease and long-term lease agreements or contracts. For example, the New Mexico statute (1985) defines 2 types of agreements. Life interest "means a life lease, life membership, life estate or similar agreement between a resident and a community whereby the resident pays a fee for the right to occupy a unit for life" (New Mexico Consumer's Guide to Continuing Care Communities, 1986). Long-term lease

> means an agreement between a resident and a community whereby the resident pays a fee for the right to occupy a unit for more than one year but for less than the life of the resident.

The New Mexico law prohibits the traditional life care contract in which a person turns over all assets at the beginning of the contract in exchange for life-long care (New Mexico Consumer's Guide to Continuing Care Communities, 1986).

It appears that legislation enacted in California, Florida, and Arizona serves as model legislation for other states. And because the American Association of Homes for the Aged has developed a model act, some states may have either developed similar acts or amended current statutes accordingly.

Coverage

The 1984 National Continuing Care Directory, which included descriptions of 277 continuing care facilities nationwide, attempted

> to identify and include in this directory every continuing care retirement community and other continuing care providers currently in operation or under construction as of December, 1983 (Raper, 1984).

It was reported in a 1986 Wall Street Journal article that in 1986 approximately 850 life and continuing care type communities were serving 150,000 households.

"An additional 4,400 may spring up by 1995, creating a $46 billion industry, predicts Leonard Bogorad, a vice president of Real Estate Research Corporation, a Chicago consulting firm" (Lublin, 1986). This growth is reflected in the survey results shown in Table 1.

Variations in definitions of life and continuing care may account for some discrepancies. For example, an official in California reported 63 facilities in 1984, indicating far more communities than were reflected in the 1984 CCRC Directory. In 1986, 70 facilities were reported (64 operating and 6 under construction). The official explained that the 1984 figure included 9 communities which no longer entered into life care contracts for various reasons. Generally, the total number of facilities has stayed fairly constant during the past 10 years, with small facilities being closed and replaced with new, larger facilities. Therefore, it appears that the industry is growing and changing, yet sources of information differ regarding just how much growth is occurring.

Table 1. Number of Retirement Facilities Currently Regulated by States

States:	Number of facilities		
	1984[a]	1986[b]	Under construction[b]
Arizona	3	6	2
California	34	64	6
Colorado	5	7	
Connecticut	3	8	2
Florida	29	110	
Illinois	14	14	
Indiana	11	40	
Maryland	11	23	7
Massachusetts	3	4	6
Michigan	4	9	
Minnesota	3	3	
Missouri	5	19	
New Mexico	2	10	5
Pennsylvania	27	73	10
Texas	9	20	
Wisconsin	8	14	
Totals	171	424	38

[a]CCRC Directory (Raper, 1984).
[b]States with legislation responding to survey.

Implementation Agency

States vary by which departments or agencies have oversight responsibility for implementation of the law. Over half the states delegate responsibility to the Department of Insurance because the focus of the law is on disclosure and the contracts are viewed by some as a type of insurance. Other states give responsibility to their Departments of Aging, Social Services, Community Affairs, or Health. Georgia and Minnesota delegate oversight to their counties.

Asked if the legislature had appropriated funds for implementation, administrators in only five states responded affirmatively. Maryland has two full-time and two part-time persons in their life care unit, but most states have only one or two persons. A typical scenario adds responsibility for life care and continuing care to an existing job description. Some states, such as California, have developed a life care advisory group at the state level to advise life care staff.

Certification and Registry Requirements

Most states require some type of certification whereby communities can be screened by the responsible agency. The intent of certification is to allow facilities to sell contracts to consumers only

after the appropriate agency has seen their provisions. This, however, is not standard procedure. For example, Minnesota requires that communities file their materials with the state, but the act of filing, alone, allows contract sales. One respondent from Texas indicated that registration of communities is voluntary and therefore contracts can be issued without filing or registering. Various documents are required, depending on the state.

Winklevoss and Powell (1984) indicated that the purpose of certification was to ensure compliance with legislative standards. They identified three key problems: whether the state has identified proper standards, if the information requested actually indicated financial stability, and whether the designated agency can evaluate the information collected. Certification, therefore, is an attempt to monitor proposed contracts prior to marketing those contracts. Some states have provisions to revoke certificates if annual financial statements indicate the facility is not performing up to state standards. Conceivably, marketing of contracts could be halted if facilities do not maintain acceptable standards and if state officials are able to provide adequate oversight.

Disclosure Provisions

If there is one area in which detail prevails, it is in the comprehensive legislation (e.g., California and Florida) requiring extensive disclosure prior to certifying facilities to sell contracts. Winklevoss and Powell (1984) presented an excellent analysis of the financial implications of these disclosure provisions. In turn, most states encourage, if not require, all potential residents to obtain copies of the materials required for certification and registration. Indiana, for example, requires that disclosure statements be given to any prospective resident. Colorado requires that the potential resident's legal counsel receive a copy.

Contract Contents

Although disclosure statements may be shared with potential consumers, contracts are the documents that residents actually sign.

Contrary policy arguments against regulation of the form and contents of continuing care agreements include (1) the potential administrative difficulties, and (2) the possibility that state regulation in this area would have to be quite complete for fear that certain communities would include in their contract only the provisions required by the statute (Winklevoss & Powell, 1984).

Of the 20 states having legislation, 14 specify content that the contract must contain, as shown in Chart 1. It is suggested by the legislation that additional areas may be covered in a contract, but that the specified provisions must be included.

Finances. — States that require specific content usually include termination and refund conditions. Termination conditions may include a grace period during which the resident can reconsider and actually void the contract after having signed it. Termination may also include circumstances in which the community can break its commitment to the resident, particularly in situations in which the resident has become dangerous to himself or herself or to others. Refund provisions specify what occurs if a contractee dies prior to occupancy, dies shortly after occupancy, and has family to whom a portion of the original fee goes, or decides to break the contract during the grace period.

Most disclosure documents must contain information on termination and refunds. The assumption by some states is that residents have read the documents and are familiar with the procedures. Other states, however, believe that it is important to provide additional information in the contract to reinforce understanding.

Services. — Of particular importance is a statement of what services will be provided once a person has signed a contract. Of equal importance may be what is not provided. Because contracts vary by facility and there is so much confusion about the terms life care and continuing care, several states require that the contract spell out which services the resident must pay for, should the need arise.

Pre-admission considerations. — Several states require contracts to contain information on admission eligibility, affiliations, and living quarters. Because these matters usually must be contained in disclosure documents, it appears that the intention is to remind applicants of such provisions and relationships.

Post-admission conditions. — Given the many contingencies that can arise when a person enters into an agreement, probably an endless list of potential situations could change a person's living arrangement. The scrutiny of states is focused on contract conditions which include resident participation in decision-making regarding financial and legal matters in the community, continued occupancy in the event a person runs out of money, conditions surrounding the person's marriage (particularly if the spouse is under age to qualify for the facility), transfers to different levels of care (both temporarily and permanently), and who makes decisions regarding permanent transfers.

Implementation of Statutes

Identified were 16 respondents, one in each state that had actually implemented legislation. (This did not include the states that had enacted legislation but had not yet implemented it, or one state in which the designated person could not be located.) A questionnaire was mailed to each person, followed by telephone calls to confirm information or to clarify responses. In some states it was difficult to locate respondents because separate units had not been developed to implement the legislation. Tracking down the responsible person was not always an easy job. In fact, sometimes representatives of the desig-

Chart 1.
States with Legislation Specifying Contract Content

Contract content shall include:	State: CA	CO	CT	FL	MA	MD	MI	MN	MO	NM	NJ	PA	VA	WI
Finances:														
Value of all property transferred	X	X		X		X					X	X	X	
Copy of facility financial statement	X	X												
Termination conditions	X		X	X	X	X	X	X	X	X	X	X	X	X
Refund conditions	X		X	X	X	X	X	X	X	X	X	X	X	X
Protection of one time lump sum payment		X		X		X	X			X		X	X	
Reserve funding policy				X	X									
Monthly service fee changes		X	X	X	X	X				X		X	X	
Fee adjustments over prolonged absence						X				X				
Conditions under which resident must apply for Medicaid or public aid						X				X				
Taxes and utilities residents pay										X				
Type insurance resident must maintain										X				
Status of resident's claim against facility if it were liquidated													X	
Services														
Services to be provided	X	X		X	X	X		X		X	X	X	X	X
Services not provided			X	X	X					X	X	X	X	X
Admission policies to nursing unit on site										X				
Admission agreement to nursing unit off site										X				
Funeral/burial services not included						X				X				
Pre-admission considerations														
Residency requirement of 50% occupancy			X											
No more than 2 persons in one double unit				X							X	X	X	
Eligibility criteria (age, health, money)				X	X					X		X	X	
Facility affiliation with religious/nonprofit/proprietary group				X		X								
Description of living quarters						X				X				
Resident's rights/obligations to use facility						X								
Current provider rules and regulations										X				
Property rights										X				
Post-admission conditions														
Resident participation in decision-making		X								X				
Continued occupancy in financial difficulty				X	X	X				X	X	X	X	
Conditions if one marries or adds person				X	X	X				X	X	X	X	
Transfer/change in level of care of unit						X				X				
Conditions under which unit could go to another person (health/financial)					X	X				X		X	X	
Permanent transfers and who decides										X				
General														
Statement that such a contract involves risk & one should consult attorney										X				
Statement that the State does not endorse contract										X				

nated agency did not know what life care or continuing care communities were.

When asked about the major reason for enactment of the legislation, respondents indicated consumer protection was the overriding factor. When pressed about why consumer protection was needed, the majority of respondents indicated that the financial insolvency of a local community or group of communities had been the precipitating factor. Prior to enactment of the legislation facilities within nine states had gone bankrupt.

Asked what groups lobbied for the legislation, numerous groups were mentioned. Residents of communities having trouble or who had known of communities with financial problems were cited, as was information from state associations of homes for the elderly (both for-profit and not-for-profit), senior citizens groups, state agencies on aging, and specific legislators who had relatives in these type communities. Maryland's life care staff indicated that there had been positive responses from developers because they, too, were concerned that the communities succeed.

Respondents were asked if the legislation had made a difference in their states. Less than half felt that the legislation had had a definite impact by offering greater uniformity of resident protection and improving the conditions of homes that might have been in financial trouble. In several states, legislation had been enacted so recently that it was too early to tell.

Asked if there had been problems in implementing the legislation, several persons commented on the types of problems that had occurred.

In the past, providers have all been nonprofit corporations, amenable to regulations. Recently, for-profit entities have been more aggressive.

The industry has been dynamic in growth and innovation, making anticipation of regulatory needs difficult.

Several providers have challenged the applicability of the Act to their operations.

As the law leaves the decision of whether facilities should register themselves, we have no way of knowing how many facilities it applied to or what the effect will be.

Standards have not yet been established to allow sound rule promulgation.

Initially there were start-up problems, but the program seems to run fine now.

Asked what insights they could provide, respondents elaborated. First, a key to success was seen as a careful review of any community in the proposal stage, being focused carefully on the attainment of major marketing goals before the obligations of borrowing and construction. There was also concern over the orderly winding down of old marginal facilities.

Second, several respondents expressed concern over the lack of teeth in their regulations. For example, Colorado had limited authority to scrutinize financial conditions of a facility until insolvency and no authority to regulate quality of care issues. Given the decentralized approach in Minnesota (responsibility for oversight was transferred to county recorders in 1981), the law appeared to be relatively unknown.

Third, enactment of the legislation was often not followed with appropriations for implementation. States with designated life care specialists or a person employed specifically to focus on life care issues were better able to implement the law.

Fourth, protection of early consumers of service was often questionable. A Michigan respondent explained that

a weakness in this legislation is that it is supposed to protect existing as well as prospective residents. Sometimes this objective creates a conflict in which the protection of one group is to the detriment of the other, and vice versa.

Fifth, lack of mechanisms to evaluate the impact of the legislation appeared to be the norm, not the exception. Texas was particularly vulnerable in this respect because retirement communities could decide whether to register. Because some communities in Texas were already into receivership, a person could purchase a contract without adequate knowledge. Without methods of determining how contracts, refund provisions, finances and grievance procedures had changed in response to the legislative initiatives, individual states could not be certain that the intent of their law was being felt. Chart 2 provides an overview of the experience of states.

Chart 2.
The Typical State Experience in Developing Life Care and Continuing Care Statutes

Areas of consideration	Prototypic state experience
Impetus for passage of the laws	Community(ies) in financial trouble Potential/current consumers raising issues Sudden increase in numbers of communities being built in that state
Purpose of laws	To insure financial stability of communities To protect consumers from unsound investments To provide guidance in financial disclosure and contract development
Structure of oversight systems	Disclosure statements usually required at state level Possible certification required before issuing contracts Possible specification of minimal contract contents
Life/continuing care communities in state	Rapid increase of continuing care facilities Increase in for profit providers
Difficulties in implementation	Defining life/continuing care so that legislation is relevant Limited funding for oversight Challenges to applicability of the law Lack of impact evaluation

Discussion

During the last 5 years there has been a tremendous growth in the literature on life care and continuing care (Branch, 1987; Leonard, 1985; Morrison et al., 1985; Netting & Unks, 1984; Winklevoss & Powell, 1984). Most writers attributed this increasing focus to two major factors: the rapidly expanding continuing care housing market and the financial insolvencies of facilities across the country. These difficulties occur in only a small portion of the industry, but regulators are trying to eliminate even the potential for financial failure.

The increase in professional literature has been accompanied by an expansion in the consumer oriented literature on continuing care communities. The Continuing Care Directory was developed by the American Association of Homes for the Aged in conjunction with the American Association of Retired Persons (Raper, 1984). New Mexico's consumer guide to continuing care facilities provides the consumer with basic facts and suggests alternatives.

Definitions continue to pose problems. Although state legislation is moving toward regulating continuing care as well as life care facilities, professionals and consumers must be educated about what they may purchase. One writer asked, "What can people who are now considering life care communities do to protect themselves? The first thing to remember is that you're investing in a contract, not buying real estate" (Topolnicki, 1985). The contract is the link between community and resident. Potential residents need to know what services are provided and what they must pay should they need health care. This agreement determines whether a person is investing in life care or in continuing care, regardless of the terminology used in the community's contract.

The names given to contracts appear to be changing to more adequately reflect what consumers are purchasing. Terms like life lease and long term lease seem more descriptive of what is being purchased than life care contract. Lease implies a resident is living within a unit for a period of time but does not own it. This is precisely the case in either life or continuing care arrangements.

Units in which older consumers live vary considerably. A unit may be a studio or one-bedroom apartment or an elaborate suite within a condominium complex. Normally an older person enters an independent living unit, moves to personal care, then to intermediate or skilled care, if needed. Regardless of how large or elaborate, the unit is not owned in the usual sense. Once a person dies or terminates the contract, the unit reverts back to the life care or continuing care corporation.

Although terminology used to describe agreements may be more accurate, additional complexities within communities need to be addressed. Although it is obvious that in response to the housing market contract or lease agreements will vary across communities, it is important to acknowledge that agreements may also vary within a community because some communities offer several contractual options.

The options hold many implications. First, states may need to review several types of contracts for each facility. This requires that state staff be knowledgeable about types of agreements and be able to analyze their implications. Second, contracts provide options for consumers so that comparing communities and their leases requires time and legal consultation. Third, communities must be viewed as innovative, offering diverse options, and not necessarily conforming to a specific model. This is particularly true as more for-profits enter the industry.

The full impact of continuing care legislation is unknown. The increase in legislation has been rapid. It appears that state level staff are struggling to implement regulatory mechanisms as the housing industry for the elderly is changing and growing. In short, they have difficulty regulating a moving target. If the intent of legislation is to regulate an industry so that it is financially sound for older consumers, then it is essential that gerontological professionals develop and maintain a working knowledge of how the industry is changing. It is equally essential that older persons obtain informed legal advice prior to signing contracts.

To understand the impact of life care and continuing care legislation, researchers need to answer many questions beyond the scope of this study. Because consumer satisfaction may be the ultimate outcome desired by legislators, the incidence of reduced consumer dissatisfaction with financial aspects of the communities would indicate whether legislation has made a difference. Alternatively, it would be important to investigate whether legislative action negatively affects the viability of residential communities. Have the regulations required competent operators of retirement communities to make commitments which unreasonably jeopardize their facilities? Researchers must determine the impact of legislation on consumers and the industry to assess the effects of life care and continuing care regulation.

References

Branch, L. G. (1987). Continuing care retirement communities: Self-insuring for long term care. *The Gerontologist, 27,* 4–8.

Continuing care communities for the elderly: Potential pitfalls and proposed regulation (1980). *University of Pennsylvania Law Review, 128,* 883–936.

Hartzler, J. E. (1984). Life care: An industry with unique financial characteristics. *Healthcare Financial Management, 10,* 76–80.

Leonard, L. R. (1985). The tie that binds: Life care contracts in nursing homes. In M. Kapp, H. E. Pies, & A. E. Doudera (Eds.), *Legal and Ethical Aspects of Health Care for the Elderly.* Ann Arbor, MI: Health Administration Press.

Lublin, J. S. (1986, October 22). Costy retirement-home market booms, raising concern for aged. *The Wall Street Journal.*

Morrison, I. A., Bennett, R., Frisch, S., & Gurland, B. J. (Guest Editors) (1985). Continuing care retirement communities: Political, social and financial issues. *Journal of Housing for the Elderly, 3,* 1–188.

Netting, F. E., & Unks, R. P. (1984). Life care: An emerging industry in need of professional scrutiny. *The Journal of Applied Gerontology, 3,* 20–33.

New Mexico Consumer's Guide to Continuing Care Communities (1986). Santa Fe: New Mexico State Agency on Aging and Office of the Attorney General.

Raper, A. T. (Ed.) (1984). *National continuing care directory.* Glenview, IL: Scott, Foresman and Company.

Topolnicki, D. M. (1985). The broken promise: Life care communities. *Money, 14,* 150–157.

Townsend, C. (1971). *Old age: The last segregation.* New York: Grossman Publishers.

Winklevoss, W. E., & Powell, A. V. (1984). *Continuing care retirement communities: An empirical, financial, and legal analysis.* Homewood, IL: Richard D. Irwin.

Winklevoss, H. E., & Powell, A. V. (1981). Retirement communities: Assessing the liability of alternative health care guarantees. *The Journal of Long Term Care Administration, 9,* 8–33.

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An older person may encounter an array of needs at the same time. Multifaceted challenges ideally call for members of several different professions to work closely together to achieve an integrated resolution in the best interests of the older person. Proposed is that the physician's legal and ethical responsibilities toward an older patient should include a duty to interact and cooperate with other relevant health or human service professionals who seek to serve the same individual. Explored are the ethical and legal bases for that responsibility.
Key Words: Law, Ethics, Teams

Interprofessional Relationships in Geriatrics: Ethical and Legal Considerations[1]

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The older individual living in a complex modern society may face a wide array of life challenges, physical, mental, psychological, social, economic, legal, and spiritual. Many of these needs call for the involvement and assistance of helping professionals. Although the resolution of some of these challenges may fall within the domain of one profession, many of the needs which daily confront older persons require some degree of interprofessional, multidisciplinary knowledge, skills, and efforts.

The concept of interprofessional cooperation employed in this paper is very broad. The vital need for active collaboration between physicians and nurses has long been recognized, if not yet successfully acted on (Makadon & Gibbons, 1985). Certainly, physicians must be prepared to work and share responsibility with social workers, physical and occupational therapists, dentists, podiatrists, and other members of the geriatric health care team. When physicians of different medical specialties are involved in consultation or referral in the common care of an older patient, thorough communication and coordination is important (Steel, 1985); this involves intraprofessional as well as interprofessional cooperation. It has also been suggested that geriatricians should relate closely to basic scientists, clinical epidemiologists, health care system researchers, and social scientists to help generate new knowledge and approaches regarding geriatric challenges (Steel, 1985). Finally, there may even be situations in which the physician needs to work in concert with the patient's attorney on issues with both medical and legal aspects; on, for example, a patient's claim for disability benefits or a guardianship petition (Kapp, 1982).

Much of the discussion here is focused specifically on physicians and their role. There are two reasons for this. First, although a few have argued against physicians as case managers for the elderly (Weksler et al., 1983), the importance of involving physicians as active members, whether or not they function nominally as leader, of interprofessional health care teams is broadly endorsed (Kapp, 1984; Williams, 1986). Second, however, it is among physicians that the stiffest barriers to interprofessional cooperation

[1]This paper is based in part on a presentation given at a conference on "Geriatric Medicine and Rehabilitation" sponsored by the Sunnyview Hospital and Rehabilitation Center and Ellis Hospital, in Albany, NY, May 3, 1986, and at a conference on "Interprofessional Health Team Care" sponsored by Ohio State University, in Columbus, OH, September 20, 1986.

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currently exist. Nurses, social workers, and others can play a vital part as catalysts in helping the physicians and formal medical staffs with which they work to break down those barriers. Thus, not only physicians are addressed, but nurses, social workers, and other health care professionals are offered legal and ethical ammunition for use in involving physician colleagues in a meaningful interprofessional process.

Furthermore, the duty of interprofessional cooperation posited here is not restricted to any specific service setting. Although much of the discussion centers on institutional care, because it is within health care institutions that many of the most knotty interdisciplinary challenges arise, the legal and ethical principles described are also relevant to ambulatory delivery settings. The inquiry should be focused on the nature of the need addressed, rather than the physical site in which it is identified.

Additionally, the principles set forth apply fully to both mentally competent and incompetent patients. Again, the focus should be on the patient's particular needs, rather than cognitive status. A competent individual should be involved extensively in the planning and implementation of his or her care, including any interprofessional aspects. For an individual who is incapable of personally making binding health care decisions, a designated proxy decision-maker should consent to a care plan.

There are strong legal and ethical bases for requiring effective interprofessional, multidisciplinary cooperation in geriatric medicine. This proposition has received thus far a fair amount of professional lip service (Corless, 1982), but very little serious, explicit analysis. Perhaps the idea is so clearly and universally accepted that it neither requires nor deserves any further time and attention. At the risk, however, of prolonging the obvious, there may be some value in expressly stating and discussing some of these legal and ethical bases and their practice implications, if for no other reason than simply that the ideal they underlie still is a long way from achievement.

Before beginning the argument, though, it is necessary to qualify the thesis. First, it is not only the elderly person who encounters multifaceted needs in life. Many non-elderly individuals also face challenges calling for multidisciplinary attention, and the legal and ethical analysis offered applies to such persons. The likelihood, however, that interprofessional cooperation might be needed will arise with greater frequency among the older population.

Second, not every problem or need of an older person requires interprofessional cooperation. Very often, one professional service provider will be fully capable of handling the matter. Addressed only are those particular situations where that is not the case, and where the involvement of a variety of different professionals on the patient's team is appropriate.

Ethical Bases

The physician's duty to foster, take advantage of, and contribute to interprofessional cooperation on behalf of older patients may be examined in terms of four of the fundamental principles in biomedical ethics: autonomy, beneficence, non-maleficence, and justice. Although these ethical principles may conflict with each other in certain concrete circumstances, they each may be cited in support of the suggested duty.

First, autonomy is the concept of self-determination and freedom, the idea that each person, to the maximum extent possible, should be permitted to make and act upon major life decisions on the basis of personal values and preferences. Enhancing patient autonomy, enabling and empowering patients to "do their thing" in terms of important life choices, should be a principle that physicians attempt to honor as they provide care, and can be promoted by interdisciplinary collaboration. Such collaboration can best support the elder's entitlement to knowledge about health conditions and decision-making rights. The physician who commands superior medical technology, the social worker who can help the patient deal with the interaction of the technology and the environment, the nurse who can educate the patient to what it means to care for oneself using the technology, the family member who knows the elder's life history, the pharmacist who may be a specialist in the hazards of the technology, and the nutritionist who can provide education about maintaining health in the face of the effect of the technology all have special knowledge to contribute to the patient's understanding of his or her situation. Additionally, this collection of professionals possesses multiple routes of access for advocacy on behalf of the older patient's ability to exercise personal autonomy (Faulkner, 1985).

Second, the ethical precept of beneficence is based on the inclination to help others, to do good for others. It is the notion that a person's perceived needs should be fulfilled. Beneficence is focused on serving an individual's best interests. This probably is the ethical principle that most strongly motivates those who gravitate to the health and human service professions for their life's work.

In many situations, the outcome of health care might be noticeably improved, and thus the welfare of the patient promoted, by interprofessional efforts. Put simply, in those situations where interprofessional efforts can best help the patient, such efforts are morally appropriate, if not obligatory, assuming the approval of the patient or patient's proxy. This may be especially true in the geriatric sphere, where the particular need is to move away from the prevailing emphasis of health care on acute rather than chronic care, total recovery after crisis, and life at any cost and in any form rather than death. For the aging, this orientation needs to be modified in favor of goals of continuous treatment of long-term illness, restoration after acute episodes to functioning that represents what is possible, with a view of death with dignity and free of pain as a morally acceptable outcome (Faulkner, 1985). The need is to concentrate more on maximizing identified adaptive capacities and providing to the elderly patient comprehensive

management, based on a more socially centered model of care. Promoting personal emotional growth and interaction may be more important for the older person than strictly clinical results. This objective is one that interprofessional cooperation should be well equipped to achieve.

Thus, under the beneficence principle, the main beneficiary of the team approach is, and should be, the patient. This has led some commentators to object to use of the term "health care team" in this context, on the grounds that team rhetoric connotes members who join together for the purpose of team victory against a foe. This is a dangerous image, it is argued, because in health care it is the patient, not the health care professionals, who is foremost and whose interests (victory) is primary (Erde, 1981). Although this objection may be overblown, to attempt to avoid it the term "interprofessional cooperation" is generally used rather than health care team so there is no question of the primacy of the patient's well-being.

A third basic ethical principle is non-maleficence. This is the concept that, even in those situations in which a particular individual cannot be helped, at least that person should not be made any worse. There are circumstances in which the inherent limitations of one profession and the failure to take proper advantage of available interdisciplinary skills and expertise may actually endanger an older patient. At a minimum, health care providers must make sure that professional self-centeredness (however innocent or well-intentioned in origin) does not expose the uninformed patient to the unnecessary, preventable jeopardy of making a problem worse.

Another ethical principle worthy of mention is that of justice. Although this concept is complex, it may basically be stated as the ideal, rarely realized, of a fair distribution of society's resources and benefits, so that each person receives that portion that he or she deserves (Rawls, 1971). To the extent that interprofessional cooperation in the practice of geriatric medicine enhances the quality of patient care and improves the efficiency and effectiveness of that care, it serves the principle of justice; the individual patient has a better chance of receiving the high quality care that he or she deserves, and the efficient, effective use of health resources makes more of those resources available to address the legitimate needs of others.

Legal Bases

For a physician who has undertaken the care of an older patient, positively interacting and cooperating with all other relevant health or human service (taken in its most expansive meaning) professionals, where appropriate and where desired by the patient or proxy, is not only clinically and ethically desirable, but, at least arguably, a legally enforceable duty as well. There are several theoretical underpinnings for a legal duty of interprofessional cooperation.

First, this duty should be considered encompassed within the general standard of reasonable or due care under the circumstances that is owed by a physician to any patient under his or her care. Good, prudent medical practice demands it, as do voluntary guidelines such as the ethical codes of relevant professional associations. The Federated Council for Internal Medicine has stated, "One important demand on the physician caring for the elderly is to develop the managerial skill and knowledge needed to mobilize health care and social service resources for the benefit of the patient. Optimal care requires cooperative participation of the several health professions and several types of community agencies" (Federated Council, 1981).

Negligence may be defined as the unintentional or accidental deviation from acceptable professional standards (King, 1986). A negligent omission or bypassing of an opportunity for the patient to authorize full interprofessional cooperation, not to mention any affirmative, intentional interference with such interaction, should render the physician legally answerable for any injuries suffered by the patient as a direct consequence of the omission or error. As one application of this argument, liability in a number of malpractice lawsuits has been predicated on a failure of adequate communication of patient care information between the attending physician and other health care professionals, where that failure led to deleterious clinical actions or omissions (Fiscina, 1982).

Second, the proposed duty of interprofessional cooperation on behalf of the older patient's best interests derives heavily from the physician's well-established legal duty of non-abandonment. A physician who voluntarily agrees to serve an individual, and on whose medical care that individual thus comes to reasonably rely, risks being found guilty of abandoning the patient if he or she does not cooperate completely with other professionals also working to alleviate the older patient's common difficulties. Such cooperation should take the form of exchange of information, assessments, and strategies (assuming, naturally, the patient's permission for such exchange), and should be considered an inherent and continuing obligation of the physician-patient relationship, whether that relationship is ongoing or has been terminated. Although there is not much current case law specifically on this point, a strong position may be posed that legal liability should be, and in a factually appropriate case likely would be, imposed where failure to join efforts with an older patient's other service professionals in the sharing of information, assessments, and strategies directly contributes to the non-relief or the worsening of the older person's interdisciplinary problem.

Consultation and referral between physicians raises especially interesting legal implications, and those issues are likely to become more complex with the rapid growth of new medical practice environments such as Health Maintenance Organizations (HMOs), Independent Practice Associations (IPAs), Preferred Provider Organizations (PPOs), and other forms of corporate medicine (Schaffer & Holloman, 1985). There exist acceptable, and even compulsory,

clinical indications for recommending patient referral and consultation. At the same time, care must be exercised to avoid any conflicts of interest in patient referrals and consultations; for example, the legal and ethical prohibition against fee-splitting must be avoided. Also, diligence must be used in the selection of other professionals to whom referrals and consultations will be directed. Although a physician is not an absolute insurer of the quality of care provided by colleagues whom that physician involves in the patient's care, potential liability looms for negligence in initial selection. As mentioned earlier, patient consent must be obtained for referrals and consultations. Finally, where a physician becomes aware of errors by colleagues that threaten the well-being of referred patients, there may be a legal duty on the referring physician's part to intervene to protect the patient from foreseeable, preventable harm.

Legal theory aside, as a pragmatic matter, effective interprofessional cooperation serves the legal self-interest of all involved parties. Serious legal jeopardy exists where there is unresolved and undiscussed tension among health care professionals jointly caring for a particular patient. Some team member may go to the courts to seek formal intervention. It was a nurse, not a family member, who went to the local district attorney and initiated legal proceedings in the much-publicized California *Barber* case (Barber v. Superior Court of State of California, 1983), the only criminal prosecution in this country against physicians for withdrawing medical treatment from an irreversibly comatose patient. Not incidentally, that case ultimately ended in complete vindication of the defendant physicians, but only after expenditure of much money, time, and emotional turmoil. In the original Baby Doe case in Indiana (Bannon, 1982), the advocacy group challenging the actions of the infant's physician and parents were alerted and instigated by a concerned nurse in Baby Doe's hospital.

When health care and human service professionals feel frustrated and left out of the process of decision-making and caring for a patient, there is a risk that they will invoke the legal system as an attempted last source of redress. Full interprofessional cooperation, besides leading to better substantive results in most instances, also psychologically defuses potential resort to the legal system. Agreement among all team members is often less than unanimous. A meaningful interprofessional process for deciding upon and implementing patient care, however, encourages each professional to express his or her own separate set of values, agendas, and needs within the collaborative process, rather than outside of that process (i.e., within the legal system), and to accept the results of that process as fairly derived.

Barriers to Cooperation

In many cases, interprofessional cooperation in the delivery of health care and human services to older people leaves something to be desired. Although case management and continuity of care are the popular buzzwords of the moment in gerontological circles, the actual level of interaction among the older person's simultaneously functioning service providers may often deviate from the clinical ideal and, it is submitted, from the ethically and legally acceptable as well.

Several possible explanations suggest themselves for this shortcoming. These include, most prominently, narrow role self-definitions, excessive professional pride, called by sociologists "disciplinary ethnocentrism" (Faulkner, 1985), natural turf-protecting instincts, stress, and non-existent or insufficient education and training in effective techniques for interprofessional cooperation. Financial reimbursement is not generally available for time spent in interprofessional cooperative activities. Among other barriers are the lack of a common interdisciplinary vocabulary, value perceptions that lead to different outcome goals, and an emphasis upon collection and use of different data for problem solving. In addition, socialization to the norms of any given health profession helps to support insularity, and recognition usually accrues to health professionals for their own disciplinary work, not for interdisciplinary ventures. Whatever the barriers are, physicians should be aware of the ethical shortcomings and potential legal ramifications of impinging on an older patient's overall well-being by failing to adequately cooperate with other health care and human service professionals on behalf of the person they commonly serve.

Mechanisms for Interprofessional Cooperation

The barriers to effective interprofessional cooperation on behalf of older patients are significant, but by no means insurmountable. On the contrary, several mechanisms exist for fostering such collaboration in an ethically and legally responsible fashion, especially on the institutional level.

One long-recognized and well-developed strategy is the interdisciplinary team conference or team meeting approach. This approach may vary in terms of composition, structure, scheduling, functions, process, and limits, depending upon the unique needs, resources, and personalities of the particular health care institution. The degree of formality versus informality may also vary among institutions. There probably is no set blueprint or paradigm to be emulated. What is important is some regular, established, recognized means within each health care setting for open and honest interdisciplinary communication and exchange of information and ideas about older patients being served simultaneously by a multiplicity of health care and human service professionals. Ordinarily, the law presumes an implied waiver of patient confidentiality concerning medical information to permit, and indeed encourage, the sharing of information among different health care and human service professionals.

Another possible mechanism for interprofessional cooperation in certain circumstances that has been garnering public attention lately is the Institutional

Ethics Committee (IEC). The Institutional Ethics Committee concept, which has at its heart the assumption of broad interprofessional collaboration (Aroskar, 1984), was originated over a decade ago by a physician (a pediatrician) in an article published in a law review (Teel, 1975). It was endorsed by the New Jersey Supreme Court in 1976 in the famous *Quinlan* decision (In re Quinlan, 1976) as a mechanism for decision-making concerning termination of treatment for certain mentally incompetent patients. Subsequently, courts in several other jurisdictions have accepted the IEC as a valuable aid to grappling with these most difficult questions (In re Colver, 1983; In re Torres, 1984).

The IEC concept really gained public prominence just a few years ago, however, when the federal Department of Health and Human Services suggested it as one means by which health care institutions could comply with the requirements of the Baby Doe regulations governing the medical treatment of handicapped newborns (Federal Register, 1984). Although that use of IECs is obviously non-geriatric, there is no reason that the IEC device cannot be used to facilitate decision-making, and subsequent action, for other patients, including (perhaps especially) the elderly (Cranford & Doudera, 1984).

There are still many unanswered administrative and legal questions concerning IECs, including proper functions (policymaking, education, individual case involvement); composition (to what extent it should be interdisciplinary and what disciplines should be represented and in what proportions); process; methods of activating involvement (who can bring a case to the attention of the IEC, and whether on a voluntary or a mandatory basis, and who may object to or veto IEC involvement); effect of decisions (advisory versus binding); confidentiality versus discoverability of IEC records; and liability exposure of IEC members and the sponsoring institution for IEC activities (Fost & Cranford, 1985).

At present there are no definitive answers for most of these questions. Development of IECs is a relatively recent phenomenon and, hence, most administrative and legal details have not had time to be hammered out through the legal process. Statutes, regulations, and judicial precedent dealing specifically with IECs are virtually non-existent. This situation should be interpreted not as ambiguity inducing anxiety, but as an invitation to flexibility and creativity in fashioning an interprofessional mechanism that is uniquely suited to the particular needs and resources of a particular health care institution. Certainly, competent legal counsel familiar with health law in the jurisdiction should be involved in helping to plan and set into operation any IEC.

Additionally, IECs will probably work best where an obvious ethical dilemma is present; many decisions, such as how to treat a given blood pressure value, are more purely clinical in nature. There is great confidence, though, that the IEC concept of interprofessional collaboration and consultation, if implemented thoughtfully and subscribed to sincerely by a variety of concerned health care and human service professionals, holds the potential for better substantive decisions ethically, strengthening the health care institution's legal defense against external challenge of patient care decisions and actions, and defusing potentially legally volatile interprofessional disputes about patients within the institution (Randal, 1983).

At the heart of any serious effort to increase the quantity and quality of interprofessional health and human services collaboration on behalf of older individuals must lie a firm educational component (Faulkner, 1985). Both present and future health and human service professionals must be taught not only the clinical wisdom and therapeutic potential of thorough interprofessional cooperation, but also the ethical and legal considerations making such cooperation imperative when clinically indicated and when approved by the patient. This educational thrust should be part of a broad program to integrate an array of legal and ethical issues into geriatric medical education (Kapp, 1985).

The integration of legal (Kapp, 1985), as well as ethical and social concerns (Freedman, 1985), into medical education in geriatrics can occur through a variety of teaching methods (didactic, audio-visuals, role simulations, patient rounds), in different settings (classroom, hospital, physician's office, nursing home), at various times during the student's education, utilizing various actors (physicians, other health care professionals, attorneys, ethicists and other humanists), and emphasizing a spectrum of content areas (Kampmeier, 1985; Schneider & Williams, 1986). Throughout any educational endeavor, however, should be a commitment to the legal, ethical, and social nature of responsible interprofessional cooperation and collaboration in geriatric practice.

Students preparing to deliver health care or other human services to elderly people should have the opportunity to observe positive faculty role models engaged in interprofessional and interdisciplinary activity and to practice their future interprofessional roles. Those who do the modeling need to be secure in their roles, their regard for each other's expertise, and their place on the team. They must believe in the concept of collaboration, their profession's role in health care and human services for older people, and the necessity for the unique contributions of the other professions. It is especially imperative that those who are responsible for teaching ethical and social responsibility set an example by behaving in an ethically and socially appropriate fashion themselves (Freedman, 1985).

Conclusion

Cooperation and collaboration among the various health care and human service professionals serving older persons is an idea about which it is necessary to think seriously, and a practice that must be implemented vigorously and enthusiastically. Admittedly, this goal is much easier posited than achieved, and carrying it out in particular cases, especially where ethical and legal principles pull in opposite direc-

tions, is difficult. Not only must professional attitudes and conduct be re-evaluated, but patients, families, and society must be educated about the value of interprofessional geriatric care and encouraged to accept and, indeed, expect it. The magnitude of this endeavor should not be underestimated. Nonetheless, the sort of interprofessional interaction recommended here is necessary to address properly the patient's best interests in helping to resolve physical, mental, psychological, social, economic, legal, and spiritual needs. It is useful in providing psychological support and encouragement to reduce the feelings of stress and isolation that frequently victimize professionals who labor in this challenging area and that may impair their own well-being, as well as their performance (Corless, 1982). Last but not least, interprofessional cooperation in the practice of geriatric medicine is essential to fulfill the ethical mandates that have been discussed and it is proposed that the physician's legal duties be extended to make those ethical mandates enforceable.

References

Aroskar, M. A. (1984). Health care professionals and ethical relationships on institutional ethics committees. In R. E. Cranford & A. E. Doudera (Eds.), *Institutional Ethics Committees and Health Care Decision Making*. Ann Arbor: Health Administration Press.

Bannon, A. (1982). The case of the Bloomington baby. *Human Life Review, 8*, 63–68.

Barber v. Superior Court of State of California, 195 Cal. Rptr. 484, 147 Cal. App. 3d 1054 (1983).

In re Colyer, 99 Wash. 2d 114, 660 P.2d 738 (1983).

Corless, I. B. (1982). Physicians and nurses: Roles and responsibilities in caring for the critically ill patient. *Law, Medicine and Health Care, 10*, 76.

Cranford, R. E., & Doudera, A. E. (1984). *Institutional ethics committees and health care decision making*. Ann Arbor: Health Administration Press.

Erde, E. L. (1981). Notions of teams and team talk in health care: Implications for responsibilities. *Law, Medicine and Health Care, 9*, 26–28.

Faulkner, A. O. (1985). Interdisciplinary health care team: An educational approach to improvement of health care for the ages. *Gerontology and Geriatrics Education, 5*, 29–39.

Federated Council for Internal Medicine. (1981). Geriatric medicine. *Annals of Internal Medicine, 95*, 372–376.

Fiscina, S. F. (1982). *Medical law for the attending physician: A case-oriented analysis*. Carbondale, IL: Southern Illinois University Press.

Fost, N., & Cranford, R. E. (1985). Hospital ethics committees: Administrative aspects. *Journal of the American Medical Association, 253*, 2687–2692.

Freedman, M. L. (1985). Medical education in geriatrics: Ethical and social concerns. *Bulletin of the New York Academy of Medicine, 61*, 501–505.

Kampmeier, R. H. (1985). Teaching in gerontology and geriatrics. *Southern Medical Journal, 78*, 1406–1409.

Kapp, M. B. (1982). Promoting the legal rights of older adults: Role of the primary care physician. *Journal of Legal Medicine, 3*, 367–412.

Kapp, M. B. (April, 1984). In charge of geriatric care (letter to the editor). *Annals of Internal Medicine, 100*, 620.

Kapp, M. B. (1985). Geriatric medical education: Integrating legal and ethical issues. *Medicine and Law, 4*, 401–408.

King, J., Jr. (1986). *The law of medical malpractice* (2nd Ed.). St. Paul, MN: West Publishing Company.

Makadon, H. J., & Gibbons, M. P. (1985). Nurses and physicians: Prospects for collaboration. *Annals of Internal Medicine, 103*, 134–136.

Nondiscrimination on the basis of handicap: Procedure and guidelines relating to health care for handicapped infants. (1984). *Federal Register, 49*, 1622–1654.

In re Quinlan, 70 N.J. 10, 355 A.2d 647, certiorari denied, 429 U.S. 922 (1976).

Randal, J. (1983). Are ethics committees alive and well? *Hastings Center Report, 13*, 10–12.

Rawls, J. (1971). *A theory of justice*. Cambridge, MA: Harvard University Press.

Schaffer, W. A., & Holloman, F. C. (1985). Consultation and referral between physicians in new medical practice environments. *Annals of Internal Medicine, 103*, 600–605.

Schneider, E. L., & Williams, T. F. (1986). Geriatrics and gerontology: Imperatives in education and training. *Annals of Internal Medicine, 104*, 432–435.

Steel, K. (1985). Geriatric medicine: From neonate to toddler. *Archives of Internal Medicine, 145*, 811–813.

Teel, K. (1975). The physician's dilemma: A doctor's view: What the law should be. *Baylor Law Review, 27*, 6–10.

In re Torres, 357 N.W.2d 332 (Minn. 1984).

Weksler, M. E., Durmaskin, S. C., & Kodner, D. L. (1983). New goals for education in geriatric medicine. *Annals of Internal Medicine, 99*, 856–857.

Williams, T. F. (1986). Geriatrics: The fruition of the clinician reconsidered. *The Gerontologist, 26*, 345–349.

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A Randomized Controlled Study of a Home Health Care Team

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Abstract: This report describes the findings of a randomized study of a new team approach to home care for homebound chronically or terminally ill elderly. The team includes a physician, nurse practitioner, and social worker delivering primary health care in the patient's home, including physician house calls. Weekly team conferences assure coordination of patient care. The team is available for emergency consultation through a 24-hour telephone service. The team physician attends to the patient during necessary hospitalizations. This approach was evaluated in a randomized experimental design study measuring its impact on health care utilization, functional changes in patients, and patient and caretaker satisfaction.

The team patients had fewer hospitalizations, nursing home admissions, and outpatient visits than the controls. They were more often able to die at home, if this was their wish. As expected, they used more in-home services, measured in weighted cost figures; their overall cost was lower than their controls, but the difference was not statistically significant. Their functional abilities did not change differently from the controls, but they, and especially their informal caretakers in the home, expressed significantly higher satisfaction with the care received. (*Am J Public Health* 1985; 75:134–141.)

Introduction

Because of the well-recognized inadequacy in provision of physician services in the home, the care of seriously and chronically ill elderly and terminal patients is frequently relegated to hospital and long-term care facilities, or to traditional home nursing services supplemented by episodic emergency room visits and crisis hospitalizations. In an effort to provide necessary medical services to allow homebound patients who wished to remain at home to do so, a home health care team was established in Rochester, New York. It consisted of a physician (internist), nurse practitioner, and medical social worker all of whom are experienced in geriatric care. Available, on call, on a 24-hour, seven day per week basis, they provide primary care for a case-load of approximately 50 homebound patients, all of whom have complex and debilitating chronic conditions or are terminally ill.[1,2]

In this report, the results of a randomized controlled evaluative research study of the team's effectiveness and acceptability are summarized.

The dearth of published research, adequately designed to assess the outcome of complex health service interventions in respect to efficacy, effectiveness, and efficiency, has been repeatedly lamented both before and after the design of this study. This is nowhere more evident than in the area of long-term care for the elderly in general and in home care in particular. The need for rigorously designed controlled studies, based on the technology of clinical trials of specific therapies, has been urged with increasing frequency.[3–6] One survey of about 1,000 studies of health services for the elderly published between 1967 and 1978 found only seven which met criteria developed by the authors as to adequate design and execution, and all of these were randomized controlled intervention studies.[7] That this methodology is adaptable to studies of such multidimensional care systems as home care has been adequately demonstrated,[8–13] as has the fact that there are significant design and execution problems which exceed those of more straightforward clinical trials of drugs or other single medical interventions.[11,13,14,16] In spite of these problems, including those of client selection and recruitment, logistics of follow-up, drop-outs, and consent and cooperation particularly of controls, we concluded that only the randomized design offered any degree of assurance in dealing with selection bias and multiple confounding variables.

The "outcomes" used to compare the results of care provided experimental and control groups had to be sensitive to the incremental effect of adding a physician-led team to existing community services, and to reflect realistically what could be expected to occur in this group of severely disabled, chronically or terminally ill, and largely elderly patients, none of whom had a good prognosis for much improvement in health or even for long survival. These outcomes included the following, stated as hypotheses in terms of the most desirable outcomes expected for the team patients as compared with the controls:

1) Health Care System Utilization

- less hospitalization and other institutionalization;
- less utilization of emergency room and other acute ambulatory care; and
- overall lower cost-weighted utilization of care, in spite of increased care in the home.

2) Patient Health Status

- less rapid deterioration in physical and psychosocial health status; and
- better "morale" (i.e., sense of well-being and life satisfaction).

3) Satisfaction with Health Care

- greater patient satisfaction with care provided; and
- greater caretaker (family or friend) satisfaction with care provided to the team patients.

Materials

Description of the Home Health Care Team

The "Home Health Care Team" was started in 1977 as an outreach program of the University of Rochester Medical Center's Ambulatory Care Unit to provide health care to home-bound, chronically or terminally ill, or disabled patients for whom transportation to the clinic had become too costly or cumbersome. The nurse was a Master's Degree medical nurse practitioner who performed many of the

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physical assessments, routine and emergency, in the community. She was responsible for the nursing plan and supported the medical care in close cooperation with the physician. All patients at intake, and as needed, received home visits and evaluations by the physician who also acted as the patient's attending physician during any hospitalizations. The social worker helped to deal with the many social, financial, and emotional problems, freeing the physician and the nurse practitioner to devote their efforts mostly to the medical and nursing aspects of care. Patients at intake received one home visit by each team member to perform the initial assessments. An interdisciplinary care plan was then established which designated one team member as the primary care provider with consultative visits by the others as needed.

Informal Care Providers and Friends—The Home Health Care Team encouraged informal care by family and friends by providing them with the necessary physical and psychological support and education to take on or continue home care. Initially every patient-applicant to the program was required to have a care provider (a family member or friend) within the same household. Soon after the start of the program, however, this requirement was relaxed to include homebound patients living alone with a helper close by and available, but not necessarily in the same household.

A 24-hour telephone service offered by the team and backed up by the physician was a vital part of this support system. All patients were advised to restrict telephone calls and service requests to office hours if at all possible, but were given the nurse practitioner's and the physician's home telephone numbers to be used for emergency consultations. In addition, they were given the access number to the physician's pager which acted as the ultimate resource for the patients. An off-hour telephone call study describes numbers, content of, and responses to these phone calls,[9] which were surprisingly low in number, especially during the night hours. More than 70 per cent of the calls could be handled by the phone call alone without need for immediate follow-up.

Financing of the Clinical Program—Insofar as possible, the clinical services of the Home Health Care Team were provided on a fee-for-service basis, the payment mechanism most patients had used previously. The same mechanism was used by the control patients. The principle of requesting customary payment for the Home Health Care Team services was not only indispensable to its operation, but also forced the care providers to plan the clinical services within a realistic framework of cost consciousness, in order to be acceptable to the patients.

The present third party reimbursement rates with patient co-payments, where possible, did not adequately cover the cost for all services. The social worker's involvement in the home, for example, is at present rarely reimbursed and the physician's time for home visits and overall involvement in the team only inadequately so.

The grant allowed us to budget for some overhead costs, which are usually assigned to the physician, and provided for the salary of the social worker. Subsequent to the experimental period, local foundations have supplemented the cost for non-reimbursable services.

Methods

Referral and Eligibility

Patients were referred from a variety of sources following a publicity campaign informing health professionals and the community at large of the program. A sample size of 200 to 250 was desired over the period of study based on ability of the team to care for half that number (estimated from previous team experience of turnover, visit frequency, and case load). All referrals that seemed potentially appropriate were screened in person by the team social worker who decided eligibility based on the patient being home-bound, wishing to remain at home, having significant illness (not primarily psychiatric) requiring medical care, not having a physician who would make home visits, living within the county, having a family member or friend ("caretaker") who could assist in their care at home, and being willing to participate in a research study. Following informed consent to participate in the study, patients were stratified into terminal (largely cancer patients who were receiving palliative care only and had prognoses for survival of three months or less) and non-terminal groups, ability to respond to questionnaires, and being a member of a couple, both members of which wished to participate in the study; within each stratum they were randomized into experimental (team) and control groups. The patients were informed of the result of randomization immediately following the initial interview, in order to keep the base-line information as free as possible of bias from knowledge of the result either by the patient or interviewer.

Interviews

Interviews were conducted by interviewers trained by the field work coordinator with practice interviews, role playing, and biweekly feedback meetings. Ten of the 14 interviewers had had previous survey experience.

Interview and data-collection instruments and scoring methods included:

- *Initial Base-line Questionnaire*, based on instruments previously used at this medical center and tested thoroughly in the National Health Survey.[17,18]
- *Health Service Utilization Diary*, designed for this study, was a complete record of the patients' use of health services for up to six months following study entry, kept on a daily basis by the patient or the family caretaker.* Utilization data from the diaries were analyzed both as units (e.g., days of inpatient stay, visits to clinics, home care nurse visits, hours of aide care, etc.) and weighted to estimate total utilization costs using current average charges for services in the community at the main provider agencies.** Since the objective of the utilization analysis was to estimate a steady state of service provision for a changing population of patients, the data were adjusted for the length of time each subject was at risk for utilizing health services during the study period, i.e., for six months, or until death or drop-out if at less than six months. For each patient, the cost-weighted utilization data were converted into a "day-cost" figure, averaged over total time in the study, for each type of

*All home or ambulatory care visits, hours of home health aide care, days of hospital or nursing home care, and related services were recorded. The diaries were monitored and collected bi-weekly by the interviewers. The diary recording of hospitalizations was validated, and corrected where necessary, by comparison with billing forms, and the diaries were also cross-checked against a sample of Visiting Nurse Service records.

**The actual means of hospital daily charges for the patients hospitalized during the study was obtained from their billing forms and was used as the hospital per diem weight. The physician home visit weighting factor was developed from estimates of total costs of a visit, including overhead and travel time, derived from a time-motion study of the home care team reported elsewhere.[9]

service, and aggregated for team and control groups into average "day-costs" for each service.

• *The Sickness Impact Profile* (SIP) was used to assess the patient's physical and psychosocial health status.[19] Interviewer-administered SIPs were obtained, where possible, from patients at study entry and at three and six months after entry. Self-administered surrogate SIPs were obtained from their caretakers at the same time. Scores were computed for the physical and psychosocial dimensions of the SIP, and for the total SIP. A comparison of patient and surrogate SIPs indicated a good level of agreement between the total and dimension scores.[20] Therefore, if any patient scores were missing, surrogate scores were substituted, when available, for the complete set of SIP scores for that patient.

• *Philadelphia Geriatric Center (PGC) Morale Scale* was used on patients who were mentally capable on initial, three, and six-month interviews to assess "morale" or life satisfaction.[21]

• *Patient and Caretaker Satisfaction Questionnaires* were administered separately to both patients and their caretakers, whenever possible, at study entry and at three- and six-months follow-up. The questionnaire contained 26 items dealing with satisfaction with the medical care received by the patient, each item having a five-point Likert-type response scale. These items were grouped into seven satisfaction scales: general satisfaction, availability of care, continuity of care, physician availability, physician competence, personal qualities of physician, and communication with physician. Scale scores were summed to give a total satisfaction score (ranging from 26 to 130, a higher score indicating greater satisfaction) which was used in testing hypotheses in this study. Details of the scales, and of the procedure used to develop and test them, are reported elsewhere.[22]

• *Death*—Date and place of death were ascertained for all patients who died during the six-month follow-up period, and who had not been lost to follow-up.

Results

Intake and Attrition

A total of 243 patients was referred to and seriously considered for the study during the 27 months of intake (i.e., patient and/or caretaker were interviewed and screened by the social worker). Of these, 210 were deemed eligible for the study, and 167 (79.5 per cent) of these signed the consent form and entered into the study. Randomization yielded 85 team and 82 control patients. Of these, 158 underwent the initial interview. The other nine either changed their minds and dropped out (5), moved away (1), or died (3) before the initial interview was performed and before they knew the results of randomization.

After the initial interview, an additional 13 subjects were lost to follow-up. This resulted in a total attrition (drop-out or move) rate of 12.6 per cent (21/167) from time of signing the consent, and 9.5 per cent from time of initial interview (15/158). The total attrition rate was higher for controls (19.5 per cent) than for team patients (5.9 per cent) although three of the controls were lost because they moved away and part of the difference was explained by higher control attritions prior to results of randomization being known. Thus, deliberate "dropping-out" among controls was 13.9 per cent (13/82) and among team patients 4.6 per cent (4/85), for a total of 10.2 per cent (17/167) for all subjects entered into the study.

Of the original 167 patients randomized, 69.4 per cent (59/85) of team and 64.6 per cent (53/82) of control patients at three months, 60.0 per cent (51/85) of team and 57.3 per cent (47/82) of control patients at six months were still alive and under follow-up.

Characteristics of Team and Control Patients at Intake

Selected characteristics of the 158 patients who completed the initial interview, based on data from these interviews, are presented in Table 1. Overall, the randomization procedure produced two reasonably comparable groups. The only demographic variable which showed a statistically significant difference was sex, with 61 per cent females in the team group compared with 76 per cent in the controls; this is taken into account in the analysis by adjustment for sex. Previous health care utilization and diagnoses in the two groups were quite similar.

Study Outcomes

Utilization—Table 2 shows the average utilization rates per patient per month, adjusted for days "at risk" in the study, expressed in the relevant units for each service. Days spent in hospital and nursing home were less for team than for control patients, as were all the other out-of-home services except emergency room visits, while utilization of services in the home was higher for team patients. Absolute number of hospital and nursing home admissions during the first six months in the study and average lengths of stay were also less for team than control patients (Table 3), as were ambulatory out-of-home services, unadjusted for days at risk.

Table 4 displays "day cost" figures for all days "at risk" in the first six months for team and control patients. The average cost per day for all services recorded for team patients was $47.83, or 8.6 per cent less than the $52.33 for control patients, using the standardized weights. For team patients, out-of-home services were 61.1 per cent of what they were for controls, while in-home services were 60.9 per cent more. The most important factor in explaining the overall difference is the reduced hospitalization among the team patients, at 62.0 per cent of the day cost of the controls. It should be emphasized here that these "cost" figures must be interpreted carefully, as they are intended only as a reflection of relative intensity of care and cannot be extrapolated directly into some actual dollar saving estimate, although they are based on actual dollar costs in this community.

The results of the statistical analysis for significance of the adjusted differences in day-costs between the team and control groups using the multiple regression approach to analysis of variance,[23] are presented in Table 5.*** These values are adjusted for age, sex, and prognosis, and are therefore slightly different from the values of the differences which would be calculated from the actual unadjusted day-costs in Table 4. The only differences which proved to be statistically significant were in the in-home day-costs during the first 90 days where team patients averaged higher costs ($p < 0.01$). Total and out-of-home day-costs showed what appears to be a strong numerical trend toward being lower

***Before analyzing the day-costs, a principal components analysis was done on the day-cost data base to determine whether there were any strong associations among the components of the day-cost. This analysis suggested that in both team and control groups in-home and out-of-home day-costs were virtually uncorrelated. Therefore, it was decided as a primary analysis to analyze these two components separately.

TABLE 1—Characteristics of Study Groups at Intake into Study

	Team (N = 82)	Control (N = 76)
Patient Characteristics		
Age (years)		
Mean	73.8	77.4
Median	75.5	79.5
% Female*	61.0	76.3
% White	73.2	88.5
% Married	42.7	22.9
% Living Alone	23.2	19.4
Mean Years of Education	9.8	8.9
Third Party Eligibility/Coverage (primary)		
% Medicaid	31.7	28.3
% Medicare	73.2	79.3
% Blue Cross/Shield (alone or with Medicare)	34.2	34.2
Prognosis		
% Terminal	22.0	18.4
% Non-terminal	78.0	81.6
Primary Diagnosis		
% Cancer	30.7	17.1
% Stroke	12.2	17.1
% Arthritis/Rheumatism	8.5	11.8
% Other (all below 10%)**	88.6	94.0
Previous Health Services Utilization		
Physician contacts in preceding 2 weeks (not including in ED or Hospital)		
% One or more	24.4	19.7
Home nursing visits in preceding 2 weeks		
% One or more	42.7	46.1
Acute hospitalizations in preceding year		
Mean days	17.5	18.1
% One or more admissions	51.2	84.0
Long-term care in preceding year		
Mean days	3.3	9.8
% one or more admissions	9.8	4.0

*The only one significant by chi-squared test at the 5% level ($p = 0.038$)
**e.g., Dementia, ADHD, Chronic Lung Disease, Multiple Sclerosis

for team patients, especially during the first 90 days. Note that variance of out-of-home values was proportionately much higher than for in-home, as measured by the standard error.

Statistical tests on the unadjusted means of team and control day-costs are presented in Table 6. Conventional unequal variance t-tests and the non-parametric Mann-Whitney test confirmed the t-tests done in the adjusted multiple regression analysis, and showed comparable levels of significance, except that the out-of-home day-cost difference became significantly lower for the team, at less than the 0.05 level, using the non-parametric test, for both the first and the second three-month periods. Of interest is the fact that mean day-costs were much less during the second three months than during the first three for both team and control patients. Part of the explanation for this, to be investigated further below, was the death during the first three months of many of the seriously and terminally ill patients.

Table 6 also shows the results of F-tests on the difference in variances of the unadjusted day-cost means. The variance in the control group out-of-home costs was significantly greater than the team's at <0.01 level, both during the first and the second three-month periods, and led to a total day-cost variance significantly greater than the controls at <0.05 level.

Because of the initial expectation that patterns of care would be different and utilization and costs higher for terminal patients than for non-terminal ones, a secondary analysis was undertaken to compare the unadjusted day-costs of the team and control patients who died within the first three months as opposed to those who did not. Table 7 demonstrates that those patients dying within three months had much higher out-of-home day costs than did those

TABLE 3—Mean Utilization Rates per Patient per Month for Days at Risk in First Six Months in Study

Medical Care Utilization	Team (N = 81)* (per month)	Control (N = 75)* (per month)
Out-of-Home		
Hospital Days	2.04	3.39
Nursing Home Days	0.56	1.32
MD Office Visits	0.06	0.17
Clinic Visits	0.11	0.53
Emergency Room Visits	0.26	0.06
Ambulance Rides	0.12	0.17
Pharmacy Rides	0.06	0.11
In-Home		
MD Home Visits	1.10	0.14
Nurse Home Visits	2.39	2.13
Social Worker Visits	0.16	0.04
RN Hours**	8.40	6.32
LPN Hours**	0.49	0.83
Home Health Aide Hours	66.66	42.64
Homemaker Hours	4.30	0.80
Home Lab Tech Visits	0.19	0.02
Meals on Wheels Visits	0.80	0.36

*The one outstanding source of utilization data missing are patient visits in each of the groups that were stated previously to have completed the intake interview since the data collection afterwards, before there were any days "at risk."
**The RN and LPN hours/visit data was usually for terminal hospice patients who required extensive care and was distinct from the shorter episodic nurse practitioner or community health nurse visits which were paid by visit.

TABLE 3—Hospital and Nursing Home Admissions during the First Six Months in Study

	Team (N = 81)	Control (N = 75)
Hospital Admissions		
Admissions per patient*	0.36	0.41
Mean length of stay	12.6 days	14.3 days
Median length of stay	8.5 days	11 days
Range of length of stay	1–60 days	1–37 days
Nursing Home Admissions		
Admissions per patient**	0.06	0.11
Mean length of stay	51.6 days	61.9 days
Median length of stay	36 days	56 days
Range of length of stay	8–150 days	1–120 days

*Team: 29 admissions of 24 patients (4 patients had 2 admissions each)
Control: 31 admissions of 25 patients (6 patients had 2 admissions each)
**Team: 5 admissions of 5 patients
Control: 8 admissions of 7 patients (1 patient had 2 admissions)

surviving, and that team out-of-home and total day-costs were substantially lower than those of controls. However, for those alive at three months there was virtually no difference between team and controls in mean day-cost. Thus, the team effect in reducing overall utilization (hospitalization having the major effect) appears to have been entirely in the group of patients who died. Similar day-cost differences were observed between those stratified initially as terminal versus non-terminal over the entire six-month period, even though not all "terminal" patients died and some "non-terminal" ones did.

Thus, hypothesis one, on health care system utilization, is supported, at least in the trends, except for emergency room visits.

Sickness Impact Profile—The multiple regression approach to analysis of variance, in which treatment effects were controlled for age, sex, and initial SIP scores, revealed no differences between team and control SIP scores either at three months (55 team and 49 control cases) or at six months (39 team and 34 controls). The adjusted score difference (team minus control) at six months for patient-reported SIPs was 0.3 and for caretaker-reported SIPs was minus 0.9, very small differences since the mean unadjusted scores at the various time intervals ranged between 28 and 39.

Patient Morale—At the initial interview, 61 team and 50 control patients were able to respond to the PGC Morale Scale. By six months, 32 team and 23 control patients were still in the study and able to respond; 31 team and 22 control patients answered both initially and at six months. There were no differences, or even trends, between team and control group mean scores at any point, or over time, in total score or in the sub-scores of the scale. For example, for patients responding both initially and at six months, mean initial score for team patients was 25.6 and for controls 26.8, and at six months were 25.9 and 25.8, respectively. Thus, hypothesis two, on patient health status, is not supported.

Patient and Caretaker Satisfaction—Unadjusted patient satisfaction scores were comparable in team and control groups at intake, and showed a trend toward greater satisfaction among team patients at three months and six months (Table 8). Team caretakers, however, showed markedly greater satisfaction than control caretakers at three months and at six months, differences which were highly significant. In all groups studied, including control group patients and caretakers, there was an increase in satisfaction scores over time, which was most marked during the first three months of follow-up. This effect was also seen when paired data only were used.

Results from the multiple regression approach to analysis of variance in which treatment effect was adjusted for initial satisfaction score, age, and sex indicate significantly higher mean scores for team compared with control caretakers both at three months and at six months, and for patients at six months only.

In view of the significant treatment effects on caretaker and, to a lesser degree, patient satisfaction, a more detailed examination of satisfaction sub-scales was undertaken. Treatment effect on caretaker satisfaction was noted in all sub-scales, but to a greater degree in satisfaction with

TABLE 4—Mean Weighted Utilization ("Day Costs") for Days at Risk in First Six Months in Study

Medical Care Utilization	Team (N = 81)		Control (N = 75)		Team/Control
Out-of-Home					%
Hospital Days	$20.40		$32.88		62.0
Nursing Home Days	1.00		2.42		41.3
MD Office Visits	.06		.10		
Clinic Visits	.12		.57		78.3
Emergency Room Visits	.51	($0.87)	.10	($1.14)	
Ambulance Rides	.16		.33		
Pharmacists Rides	.03		.03		
Subtotal	$22.27		$36.44		61.1
In-Home					
MD Home Visits	$ 2.56		$ .32		
Nurse Home Visits	3.20		2.99		
Social Worker Visits	.22		.05		
RN Hours	2.10		1.88		
LPN Hours	1.19		.10		
Home Health Aide Hours	15.32		9.86		
Homemaker Hours	.84		.75		
Home Lab Tech Visits	.03		.003		
Meals on Wheels Visits	.10		.07		
Subtotal	$25.56		$15.89		160.9
Total	$47.83		$52.33		91.4

TABLE 5—Significance Tests on Mean Day-Cost Differences by Follow-up Period Adjusted for Age, Sex, and Prognosis between Team and Control Groups

	0 to 180 Days	0 to 90 Days	91 to 180 Days
Total Day-Costs			
Difference (± S.E.)*	−$9.06 (± 9.64)	−$9.87 (± 10.00)	−$0.15 (± 3.39)
p-value**	ns	ns	ns
Out-of-Home Day-Costs			
Difference (± S.E.)*	−16.86 (± 9.62)	−14.42 (± 10.00)	−3.43 (± 3.67)
p-value**	ns	ns	ns
In-Home Day-Costs			
Difference (± S.E.)*	+10.81 (± 3.98)	+10.74 (± 3.88)	+3.27 (± 2.35)
p-value**	0.008	0.008	ns

*Team vs control day-cost, ± standard error of the estimate. Minus (−) value indicates adjusted team day-cost is lower than control.
**p-value from t-test on the difference between the adjusted day-cost means, using multiple regression approach to analysis of variance.
ns = not statistically significant (p > 0.05)

physician availability, competence, and personal qualities. Patient sub-scale scores showed relatively little treatment effect, with the exception of the sub-scales dealing with availability of care in general, with availability of the physician, and with personal qualities of the physician.

Hypothesis three is therefore supported, particularly in respect to caretaker satisfaction.

Mortality, Survivorship, and Place of Death—Exact mortality rates during the six months of the study cannot be calculated because of the subjects who were lost to follow-up, especially among the controls. Eliminating those on whom survivorship was unknown at six months after intake, the total known six-month mortality rate for the team patients was 36 per cent (29/80) and for the controls 29 per cent (19/66), including those who died before the initial interview.

The survival profiles after adjustment for prognosis were tested for significance, assuming exponential survival, by the method of Aitken and Clayton [9]. The log-likelihood ratio chi-square statistic for the comparison of team and control survivorship had a value of 1.4 with one degree of freedom, indicating no difference ($p > 0.10$). Seventy-two per cent of all terminal stratum patients were dead by three months, while only 11 per cent of the non-terminal were, indicating the prognosis was quite accurate.

Place of death was determined for 43 of the 45 deaths: 30 (71 per cent) of the team patients died at home compared with 7 (47 per cent) of control group patients. Place of death could not be determined for two control group patients.

Discussion

The trend toward reduced hospital utilization seen among the team patients appears to be explained almost entirely by the lower costs of care of team cases who died during the study period and is related to the considerably higher proportion of team than control patients dying at home. However, this conclusion should not tempt one to recommend the team care approach only for patients designated as "terminal". The entire study population, by admis-

TABLE 6—Significance Tests on Unadjusted Mean Day-Costs by Follow-up Period

	0 to 180 Days	0 to 90 Days	91 to 180 Days
Number			
Team	91	91	80
Control	75	75	80
Total Day-Costs*			
Team (± 1 SD)	$47.57 (± 80.03)	$47.79 (± 89.02)	$14.34 (± 13.84)
Control (± 1 SD)	42.24 (± 72.66)	$50.30 (± 74.04)	16.23 (± 19.73)
t-Test p-value	ns	ns	ns
Mann-Whitney p-value	ns	ns	ns
F-test p-value	0.822	0.840	0.810
Out-of-Home Day-Costs*			
Team (± 1 SD)	32.24 (± 80.30)	32.66 (± 89.79)	3.80 (± 9.30)
Control (± 1 SD)	39.37 (± 72.61)	34.87 (± 74.13)	7.74 (± 18.06)
t-Test p-value	ns	ns	ns
Mann-Whitney p-value	0.045	0.023	0.018
F-Test p-value	0.001	0.005	0.0001
In-Home Day-Costs*			
Team (± 1 SD)	25.34 (± 37.27)	24.92 (± 35.79)	10.51 (± 12.04)
Control (± 1 SD)	16.87 (± 32.58)	15.43 (± 32.82)	7.89 (± 11.28)
t-Test p-value	0.019	0.010	ns
Mann-Whitney p-value	0.033	0.002	ns
F-test p-value	ns	ns	ns

*These costs are all very slightly less than those in Table 5, since they do not contain the same, minor day-cost estimate (re-allocated from the admission charges due to the activity of the non-intensive research part of the study, and the short-notice costs added in later to Table 5).
ns = not statistically significant (p > 0.05)

TABLE 7—Unadjusted Mean Day-Cost by Survival at Three Months

	n	Out-of-Home Day-Cost	In-Home Day-Cost	Total Day-Cost
Dead by 3 Months				
Team	(21)	$ 57.67	$34.91	$ 92.58
Control	(16)	110.79	13.87	124.66
Total	(37)	80.64	25.81	106.45
Alive at 3 Months				
Team	(60)	$ 9.83	$21.89	$31.72
Control	(53)	16.19	16.41	32.61
Total	(113)	12.99	19.22	32.21

sion criteria, was a group of severely disabled homebound patients with multiple medical problems, the type of patient most at risk of developing a severe health crisis, often needing institutionalization, and at risk of dying. When death was expected, the impact of the team in providing routine care and 24-hour availability in the home may have affected the willingness of patients and family caregivers to choose home care even in crisis. Thus, the study answers the General Accounting Office call for "more research into the effects of expanded home health care on those elderly highly at risk of placement in nursing homes and on hospital admissions."[23] It confirms the hope that in this specific group of patients high intensity home health care can be cost-effective.

The one out-of-home utilization rate which was higher for team patients was emergency room visits. This is a result of the fact that those particular team patients happened to have very low numbers of days at risk and a valid conclusion on this point cannot be drawn. Also of interest is the fact that the variance in the out-of-home day-cost for the controls was substantially greater than for the team patients, suggesting possibly greater control and predictability of hospital costs for the patient under the close surveillance and care of the home care team physician.

The study results failed to demonstrate any effect of the intervention upon patient functional status (physical or psychosocial) or morale. While the mortality rate was higher among team patients, survivorship, as an indicator of average adjusted time survived during the period of study, did not differ significantly between the two groups. Although no significant improvement in either mortality or morbidity in the team cases was expected due to the age, severity of illness, or terminal status of the subjects, the evidence for no negative effect of team intervention is welcome (it might be of concern, for example, that over-zealous attempts to avoid hospitalization or emergency room care would have adverse effects). There was no evidence, however, for significant delay in functional deterioration of the team over the control cases, which had been hypothesized.

The strongest statistical results favoring the team were observed in caretaker satisfaction with health care. Trends in patient satisfaction were also strong, especially at six months. Sub-scale analysis indicated that satisfaction sub-scales which seemed the most affected by the intervention were the scales concerned with availability of care in general as well as of physician care in particular and those concerned with characteristics of the physician (personal qualities and competence). These findings are generally consistent with what might be expected from the intervention which made home care, especially physician home care, more available to patients and their families. The increased satisfaction with physician characteristics may be a reflection of the particular physician participating in the Home Health Care Team and may not necessarily occur in replications of the intervention at other sites, or in expansion of the program in Monroe County to include a broader physician group. It is not possible to rule out a "Hawthorne effect" in interpreting these results as patients and caretakers were well aware of being in a demonstration study.

The controls were not truly without intervention in this study, since they kept health utilization diaries and were visited by the interviewers who sometimes perforce offered advice and support. The increase in satisfaction in the control group over the study period may reflect this, while the lesser increment in satisfaction among the controls as compared with the team group may in part be related to disappointment at not having been randomized into the team group initially.

Patient satisfaction scale scores had lower internal consistency than caretaker scores.[20] This may reflect the poorer health status of patients, and perhaps their reduced ability to concentrate and answer the questionnaire in a consistent fashion. This may account for the inability to detect as much improvement in satisfaction in patients as compared with caretakers. Also, great stress in caring for seriously ill patients falls on the family members who may therefore be more sensitive than patients themselves to changes in the quality of care provided. In any case, for these disabled, dependent, and severely ill patients and their caretakers, satisfaction with the health care they receive is undoubtedly of much greater relative importance than for the average citizen for whom contact with health providers is far less frequent and significant in the hierarchy of life experiences, and is therefore an even more desirable outcome.

Finally, this high degree of caretaker satisfaction with team care deserves one further comment. The utilization data show that savings in hospital days, the costliest care

TABLE 8—Mean Unadjusted Satisfaction Scores and Significance Tests at Intake, Three and Six Months

	Intake				3 Months				6 Months			
	Team	Control	t-test(p)	Mann-Whitney U(p)	Team	Control	t-test(p)	Mann-Whitney U(p)	Team	Control	t-test(p)	Mann-Whitney U(p)
Patient Satisfaction	(n = 57) 79.8	(n = 47) 81.1	ns	ns	(n = 37) 82.1	(n = 30) 83.7	ns	ns	(n = 31) 88.0	(n = 33) 89.3	ns	ns
Caretaker Satisfaction	(n = 67) 78.1	(n = 55) 75.4	ns	ns	(n = 61) 86.8	(n = 42) 82.1	<.0001	<.0001	(n = 31) 89.8	(n = 28) 86.8	<.002	<.001

*Mann-Whitney Test
ns = not statistically significant at greater than 0.05

days, can be attributed almost entirely to the fact that more team patients spent their days of highest care needs at home, where much of the service is provided by informal family caretakers at no cost to the system. Thus, it is most remarkable that these caretakers who contributed most significantly with their time and effort to lowering cost are also the group most satisfied with this care approach. Patient and caretaker satisfaction, therefore, has a direct relationship to health care utilization and cost reduction. Since all patients and caretakers in this study had freely chosen a home care approach, however, similar findings might not be expected in a group forced into the home care option. Thus, although home care at such a critical stage in life is not for everybody, there will always be people who prefer this option, and for them this study has shown that it can be cost-effective and desirable.

REFERENCES

1. Zimmer JG, Groth-Juncker A. Off-hour telephone calls to a geriatric home care team. Home Health Care Serv Q 1982; 3:63–70.
2. Zimmer JG, Groth-Juncker A. A time-motion study of patient care activities of a geriatric home care team. Home Health Care Serv Q 1983; 4:67–78.
3. Mitchell JB. Patient outcomes in alternative long-term care settings. Med Care 1978; 16:439–452.
4. Hammond J. Home health care cost effectiveness: an overview of the literature. Public Health Rep 1979; 94:305–311.
5. Doudoy DB. Expanded home-based care for the impaired elderly: solution or pipe dream? Am J Public Health 1980; 70:514–519.
6. Klimt CR. The conduct and principles of randomized clinical trials. Controlled Clin Trials 1981; 1:283–293.
7. Bloom BS, Super KA. Health and medical care for the elderly and aged population: the state of the evidence. J Am Geriatr Soc 1980; 28:451–455.
8. Nielson M, Blenkner M, Bloom M, Downs T, Beggs H. Older persons after hospitalization: a controlled study of home aide service. Am J Public Health 1972; 62:1094–1100.
9. Blenkner M. Protective Services for Older People: Findings from the Benjamin Rose Institute Study. Cleveland: The Institute, 1972.
10. Katz S, Ford AB, Downs TD, Adams M, Rusby DI. Effects of Continued Care—A Study of Chronic Illness in the Home. DHEW Pub. No. (HSM) 73-3010. Washington, DC: Govt Printing Office, 1972.
11. Papsidero JA, Katz S, Kruger MH, Akpom CA: Choices for Change: Implications of a Chronic Disease Module Study. East Lansing: Michigan State University Press, 1979.
12. Wan TTH, Weissert WG, Livieratos BB. Geriatric day care and homemaker services: an experimental study. J Gerontol 1980; 35:256–274.
13. Weissert WG, Wan TTH, Livieratos BB. Effects and Costs of Day Care and Homemaker Services for the Chronically Ill: A Randomized Experiment. NCHSR Research Report Series. DHEW Pub. No. (PHS)79-3258. Washington, DC: Govt Printing Office, 1980.
14. Weissert WG, Wan TTH, Livieratos BB, Pellegrino J: Cost-effectiveness of homemaker services for the chronically ill. Inquiry 1980; 17:220–243.
15. Skellie FA, Cann RE. Community-based long-term care and mortality: preliminary findings of Georgia's alternative health services project. Gerontologist 1980; 20:372–379.
16. Comments on the Weissert Report. Home Health Care Serv Q 1980; 1:97–121.
17. Raghunan KJ, Haggerty RJ: Measuring the use of health services by household interviews: a comparison of procedures used in three child health surveys. Int J Epidemiol 1976; 3:71–81.
18. National Center for Health Statistics: Health Interview Survey Procedure 1957–1974. Series 1, No. 11. DHEW Pub. No. (HRA) 75-1311). Rockville, MD: USDHEW, 1975.
19. Bergner M, Bobbitt RA, Carter WB, Gilson BS: The Sickness Impact Profile: development and final revision of a health status measure. Med Care 1981; 19:787–805.
20. McCusker J, Stoddard AM: Use of a surrogate for the Sickness Impact Profile. Med Care 1984; 22 (in press).
21. Lawton MP: The Philadelphia Geriatric Center Morale Scale: a revision. J Gerontol 1975; 30:85–89.
22. McCusker J: Development of scales to measure satisfaction and preference regarding long-term and terminal care. Med Care 1984; 22:476–493.
23. Brownlee KA. The multiple-regression approach to analysis of variance. *In*: Statistical Theory and Methodology in Science and Engineering. New York: J. Wiley, Ch 16, 1960.
24. Aitken M, Clayton D: The fitting of exponential, Weibull and extreme-distributions to complex censored survival data using GLIM. Appl Stat 1980; 29:156–163.
25. General Accounting Office: The Elderly Should Benefit from Expanded Home Health Care but Increasing these Services Will Not Insure Cost Reductions. Washington, DC: GAO, 1982.

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Foster Home Care for the Frail Elderly as an Alternative to Nursing Home Care: An Experimental Evaluation

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Abstract: This paper describes a program (Community Care Program) in which some elderly hospital patients who were candidates for nursing home placement were placed in foster homes. Caregivers were carefully trained and supervised. A total of 112 elderly inpatients were randomly assigned to placement in a nursing home or a foster care home. Patients and caregivers were interviewed at 3, 6, 9, and 12 months after placement.

Community Care Program patients were more likely to maintain or improve ADL (activities of daily living) and mental status scores. They also had better nursing outcomes and were more likely to get out of the house than were nursing home patients. Nursing home patients had higher life satisfaction, and participated in more social and recreational activities. The Community Care Program was 17 per cent less costly than nursing home care. The results suggest that foster care may be a viable alternative for a segment of the nursing home population. (*Am J Public Health* 1987; 77:1505–1510.)

Introduction

While the institutional bias of public policy for the frail elderly is commonly deplored,[1,2] the search for alternatives has been frustrating. Quasi-experiments with coordinated service packages (case management),[3] homemaker and day care[4] have shown that these programs often serve populations that are healthier than nursing home patients, or those who will never be placed in nursing homes.[5] When patients equally dysfunctional to those in nursing homes are served, community-based programs are very costly.[6,7] Some argue that cost should not be an overriding factor,[8] but when we consider the dramatic increases in the elderly population expected in the coming decades,[9] along with the increasingly limited funds available for health care, cost cannot be overlooked.

This paper describes an experimental evaluation of a different type of alternative to nursing home care: community-based foster home care. Whereas frail elderly have lived with non-relatives for centuries, these arrangements have traditionally not involved any outside supervision. In fact, problems in these "boarding-home" arrangements contributed to the development of the modern nursing home. Recently, however, foster home programs have been developed by psychiatric hospitals and mental health departments, social service departments, and the Veterans Administration.[10–14] These programs provide varying degrees of supervision and care for elderly with mild to moderate levels of disability. Only within the last few years has this idea been tried with a severely disabled elderly population. Acute care hospitals in Boston, Honolulu,[15] Poughkeepsie,[16] and Baltimore[17] have started small foster care programs for patients in need of intermediate or skilled care. Such programs offer promise of providing a non-institutional alternative that simulates family living at a reasonable cost. In this paper, one such program is compared with nursing home care on the basis of quality of care and cost.

Program Description

The Community Care Program was started in March of 1979 by the Johns Hopkins Department of Social Work. It was staffed by a social worker (licensed MSW), a nurse practitioner (geriatric nurse practitioner at the master's degree level), and a part-time secretary. The staff took responsibility for the recruitment and training of suitable caregivers, the selection of appropriate patients (from inpatients at Johns Hopkins Hospital who were ready for discharge), the placement process, and ongoing monitoring and service to both patient and caregiver. Medical back-up was provided by the Johns Hopkins Internal Medicine Associates—a faculty and housestaff group practice located in the hospital. Caregivers were paid $350–$500 a month, depending on the care needs of the patient. (Funds from the Robert Wood Johnson Foundation were used to make up the difference between what the program determined the caregiver should be paid and the amount the patient could afford. RWJ funds also paid for salaries of the staff, for equipment and supplies not covered by 3rd party payers, and for transportation.) Caregivers provided the patient with a private room in their home, meals, laundry, assistance with personal and instrumental activities of daily living, 24-hour supervision and nursing tasks (as needed) such as monitoring medications, keeping daily records on patient status, injections, and behavioral modification. Most caregivers took in only one patient, but a few with unusual experience or ability cared for two patients at a time. Figure 1 illustrates the placement process.

Following placement, the Community Care Program staff monitored the patient's care through daily recording forms, weekly phone calls, and monthly home visits at a

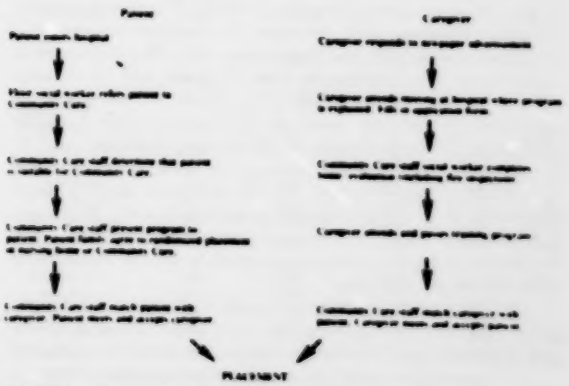

FIGURE 1—Community Care Placement Process

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minimum. The nurse was responsible for direct in-home nursing services, health education of the caregiver and patient, ongoing assessment, consultation with the physician, and supervision of the caregiver. The social worker dealt with patient and caregiver adjustment, family problems, financial problems, and helped link the patients and caregivers to needed community services, such as senior recreation or day care programs. Caregivers were reevaluated every six months.

The typical caregiver was a middle-aged Black woman who was married and lived with her husband and children. She had a high school education and previous experience caring for frail elderly patients—either with family members and/or through paid work as a nurse's aide. The caregivers as a group were very religious people who professed to be motivated by a combination of humanitarian goals and a desire for additional income. They did not need to be licensed because, in Maryland, licensing only applies if there are four or more patients in the home. The homes of all caregivers had to pass a fire inspection.

Methods

Patients at the Johns Hopkins Hospital who were 65 years and older and who were thought to have no alternative to nursing home placement were screened by the Community Care staff. Excluded were those patients whose needs could not be met in a community foster home (e.g., needed 24 hours care, multiple skilled nursing needs, extremely obese, aggressive). Eligible patients (and families when available) were told about the Community Care Program. There were 112 patients (representing about 20% of the eligible patients) who agreed to random placement into either community foster care or nursing home care.

The patient population that found foster care acceptable was more likely to be poor, single, and living alone at admission. Also, Blacks were more likely than Whites to accept foster home placement. Finally, those accepted into foster care were somewhat higher in functional ability than the majority of frail elderly being discharged from the hospital. The program was often rejected by family members, who seemed to feel less threatened by the institutional setting of a nursing home.

Random assignments were initially 60 per cent to Community Care and 40 per cent to nursing home to ensure adequate numbers in the experimental group. This ratio was later changed to 50–50. The individual randomization assignments were placed in sealed envelopes by the research staff before the experiment began. A hospital staff member unknown to the program staff was called when a patient was ready. After recording the patient's name, this person opened the next envelope and revealed the random assignment. Between March 1979 and September 1981, 59 patients were assigned to the Community Care Program and 53 to area nursing homes. Of the initial 112 patients, we were able to interview 53 (47 per cent) at 12 months after hospital discharge. Of the remainder, 34 (30 per cent) had died, and 25 (22 per cent) were lost to follow-up. Of those assigned to the Community Care Program, 42 (71 per cent) actually were placed there; of those assigned to nursing homes, 36 (68 per cent) actually went. The large majority of patients who were not placed as assigned returned to their homes or went to live with friends or relatives.

Patients were interviewed prior to hospital discharge, and both patients and caregivers were interviewed at 3, 6, 9 and 12 months post-discharge. The patient interview included the following instruments: a mental-status scale,[18] a life-satisfaction scale,[19] an item on perceived health, and four questions on social interaction: frequency of telephone calls, frequency of visitors, participation in social or recreational activity, and frequency of getting outside of residence. The caregiver interview measured activities of daily living,[20] instrumental activities of daily living,[21] patient mental status, and life satisfaction (see Appendix A for a description of these indices). Background information on demographics and health status was obtained from the medical record. Specific nursing goals were set for each patient before the random assignment took place, to avoid bias. Three months later, the nurse returned to visit the patient and ascertain to what extent each goal had been met. Each goal was rated in four categories: "exceeded," "met," "partially met," and "not met." For each goal, the extent to which deterioration had been avoided was rated in three categories: "avoided," "partially avoided," and "not avoided."

All three instruments were tested for interrater reliability. Two different interviewers interviewed patient/caregiver pairs on consecutive days. For the nursing goal attainment scale, the program nurse and an outside nurse rated 10 patients with respect to the discharge goals. Correlation (r) between the two sets of ratings were as follows: MSQ (.75) LSI-Z (.52) ADL (.86) IADL (.81) Nursing Goal Attainment (.69).

The data from individual and caregiver interviews were analyzed by comparing the scores 12 months after discharge with the same scores at the time of discharge. To evaluate changes in functioning or attitude on the various measures, each patient was classified into one of two categories for each measure: 1) patient deteriorated; and 2) patient did not deteriorate or improved. A more complex measure was also calculated to take into consideration the magnitude of the change in each case. For this purpose, each patient's initial score was subtracted from their score at 12 months, again on each indicator. To compensate for different amounts of possible change based on the initial score, the "difference" score was then divided by the total change possible. The result is a proportional change score, which can be interpreted as the improvement or deterioration achieved as a proportion of the total improvement or deterioration possible. Finally, the average proportional change was calculated for each group—Community Care, and Nursing Home.

In addition to comparing the quality of care in the two settings, we made some cost comparisons. The data for the cost comparisons were based only on those patients who were actually placed in the assigned settings. To calculate the cost of an average day in the Community Care Program, cost data from years 2 and 3 of the program were used. Years 1 and 4 were eliminated because of the impact of a "start up" condition (year 1) and incomplete data (year 4). To begin, the basic cost of providing community care (payment to caregiver plus staffing costs) was compared with the average daily nursing home rate. Second, indirect costs (transportation, space, physician services, and respite) were added. Finally, we considered costs that went beyond direct costs to the programs. For example, utilization of out-of-program health services, such as physician visits, ambulance, hospital days, emergency rooms, etc., could differ in the two settings. This difference would add a cost to the larger system rather than the program itself. To estimate this cost, a sample of 10 patients was selected randomly from each of the two programs. Medicaid and Medicare payment history records were reviewed for the 20 sampled patients. Costs by type by year

TABLE 1—Demographic Characteristics by Random Assignment Group

Demographic Characteristics	CCP (N = 59)	NH (N = 53)
Mean Age (years)	70.2	69.8
Age		
[illegible]	18.6	41.5
[illegible]	81.4	58.5
Sex		
Male (%)	35.6	35.8
Female (%)	64.6	64.2
Marital status		
[illegible] (%)	10.3	5.7
[illegible]	27.6	11.3
Separated Divorced (%)	8.6	17.0
Widowed (%)	50.0	60.4
Living Arrangement at Admission		
Alone (%)	57.6	54.7
Spouse (%)	6.8	5.7
Children (%)	8.5	13.2
Sibling (%)	8.5	1.9
Other Relative (%)	10.2	6.8
Non-Relative (%)	6.8	13.2
Institution (%)	6.8	7.5
Median Yearly Income	$2,000–2,999	$2,000–2,999
Prognosis		
Good (%)	47	42
Guarded (%)	27	30
Poor (%)	25	28

were summarized to obtain an average incremental cost per day due to Medicaid and Medicare reimbursements.* This average per patient cost was then applied to all patients in the two programs.

Results

Initial Comparison of Experimental and Control Groups

Randomization is designed to ensure that the experimental and control groups do not differ at the onset. With experimental design, observed differences after the "treatment" has been applied can be attributed to the differences between the programs, in this case, between the Community Care Program (CCP) and nursing home care. Table 1 shows the initial characteristics of patients assigned to the CCP and nursing home care. Demographically, the two groups are comparable for age, sex, living arrangement at time of admission, and income. Similar proportions of both groups are without a spouse, although the reason why varies somewhat. More Black patients were assigned to the CCP than to nursing home placement.

Outcome: Mortality

At the end of 12 months following hospital discharge, 17 (32.0%) of the 53 cases assigned to nursing home placement had died, and 17 (28.8%) of the 59 cases assigned to Community Care Program died during the same time period. The difference is 3.2 per cent (95% CI −14%, +20%). If we consider only the cases who were placed as randomly assigned, the figures are 25.0 and 16.6 per cent, respectively, giving a difference of 8.4 per cent (95% CI −14%, +30%).

Figure 2 compares the survival curves (based on the product-limit method developed by Kaplan and Meier) of those placed as assigned and those not so placed.[22] The cases who were not placed in either a nursing home or a community foster home clearly had a higher mortality rate.

*The analysis of the Medicaid and Medicare costs was conducted by the Leventhal and Horwath Accounting Firm.

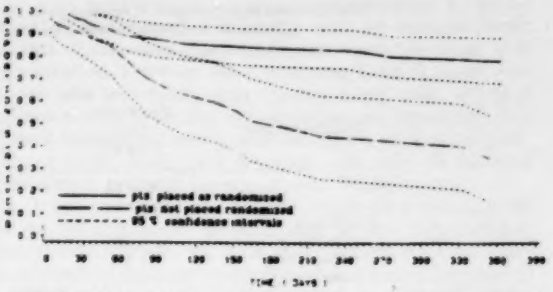

FIGURE 2—Survival Curves with 95% Confidence Intervals of Patients Placed as Randomly Assigned to Community Care Program or Nursing Home (N = 78) and Patients Not So Placed (N = 34)

Outcome: Discharge to Community Living

Eight patients were discharged from the Community Care Program to various community living arrangements. Some moved into other types of boarding homes, others moved in with family members, but most returned to independent living. Five patients were discharged from nursing homes to community living. This represents a difference of 5 per cent (95% CI −7%, +16%).

Outcome: Functional Status and Attitude

Data on activities of daily living (ADL), instrumental activities of daily living (IADL), mental status, perceived health, and life satisfaction for all patients who were interviewed at 12 months are presented in Table 2. Data are also presented for the subgroup of patients who were placed as randomly assigned.

Table 2 shows the per cent of patients in each group (Nursing Home and Community Care) who either improved or maintained their scores between the initial interview (done in the hospital) and the one done one year later. The table shows that more patients assigned to the Community Care Program improved or maintained ADL functioning (.78) than did those in nursing homes (.60). The difference between the treatment settings is somewhat larger among patients placed as randomly assigned. When we examine the categories that make up the ADL scale, we find that the difference is

TABLE 2—Proportion Cases Maintaining or Improving in 12 Months by Treatment Group for all Cases Randomized and for Only Those Placed as Randomly Assigned*

Outcome Indices	Community Care Program	Nursing Home	Difference	95% Confidence Interval	
	N = 28 (N = 24)	N = 25 (N = 21)	(a–b)		
Functioning					
Activities of Daily Living	.78 (.86)	.60 (.63)	+ .18 (+ .23)	− .07 (− .02)	+ .43 (+ .48)
Instrumental Activities of Daily Living	.74 (.77)	.68 (.61)	+ .06 (+ .16)	− .17 (− .11)	+ .31 (+ .43)
Mental Status	.64 (.65)	.58 (.50)	+ .06 (+ .15)	− .21 (− .14)	+ .33 (+ .44)
Attitudes					
Perceived Health	.68 (.61)	.83 (.78)	− .15 (− .17)	− .39 (− .44)	+ .09 (+ .10)
Life Satisfaction	.45 (.56)	.73 (.67)	− .28 (− .11)	− .55 (− .39)	− .01 (+ .17)

*Data for those cases placed as randomly assigned are in parentheses.

TABLE 3—Average Change in Functioning and Attitude as a Proportion of Total Possible Change by Treatment Group for all Cases Randomized and for Only Those Cases Placed as Randomly Assigned*

Outcome Indices	Treatment Group				
	Community Care Program	Nursing Home	Difference	95% Confidence Interval	
	N = 28 (N = 24)	N = 25 (N = 21)	(a–b)		
Functioning					
Activities of Daily Living	+.29 (+.35)	+.11 (+.21)	+.18 (+.14)	−.10 (−.14)	+.46 (+.42)
Instrumental Activities of Daily Living	−.15 (−.12)	−.12 (−.26)	−.03 (+.14)	−.37 (−.25)	+.31 (−.53)
Mental Status	+.17 (+.18)	+.10 (−.02)	+.07 (+.20)	−.21 (−.08)	+.35 (+.48)
Attitude					
Perceived Health	+.10 (+.12)	+.23 (+.23)	−.13 (−.11)	−.52 (−.55)	+.26 (+.33)
Life Satisfaction	−.02 (+.07)	+.21 (+.22)	−.23 (−.14)	−.51 (−.45)	+.05 (+.23)

*Data for cases placed as randomly assigned are shown in parentheses.

explained by improvement in bathing, dressing and, to a lesser extent, transferring. In the areas of toileting and continence, nursing home patients did as well or better. This finding is consistent with program experience, where caregivers found it very hard to manage problems of bowel or bladder incontinence. Techniques used in nursing homes, such as toilet training and manipulation of diet, were often objectionable to community caregivers.

In the areas of instrumental activities of daily living and mental status, there was a small difference in favor of the Community Care Program. However, the confidence intervals show that the difference has a substantial likelihood of being negative. Thus we cannot be sure that these differences are meaningful. Again, the differences are more substantial among those placed as randomly assigned.

In the "attitude" measures, the trend is reversed. That is, the patients assigned to nursing home placement did better over the one-year period than those in the Community Care Program. On the "perceived health" question, .68 of those assigned to community care improved, compared to .83 of those assigned to nursing homes. On "life satisfaction," the figures are .45 and .73, respectively. The confidence intervals for life satisfaction range from −.55 to −.01, suggesting that we can be reasonably sure that the direction of the relationship is negative. However, the difference among those placed as randomly assigned is weaker, in this case. The use of mood elevating drugs was examined as a possible confounding factor. We found that nursing home patients *were* more likely to receive these substances (44 per cent as compared to 17 per cent of CCP patients). However, controlling for this factor did not alter the magnitude of the relationship.

Table 3 shows the same data as Table 2 except that the size of the differences and the amount of possible change (given the initial score) are taken into account. This analysis does not substantially change the interpretation of the results.

Assessment of Confounding by Race

Because there was a difference in the proportion of Blacks and Whites randomly assigned to the two treatment settings, it is important to evaluate and remove any confounding due to race. Table 4 shows the crude difference in proportion improving or maintaining initial scores after 12 months and the pooled difference in proportion controlling for race, and the confidence intervals for the two difference scores.[24] The pooled difference was determined as a weighted sum of the race specific differences. Comparison of the crude and pooled difference scores (controlling for race) shows that confounding was present only in the case of the mental status index. Here, the pooled score shows a considerably better outcome in the Community Care Program (difference = +.14, 95% CI −.12, +.40) than does the crude difference score (difference = +.06, 95% CI −.21, +.33). Examination of the data show that overall, more Whites improved or maintained their initial mental status (87%) than did Blacks (50%). Both Blacks and Whites placed in the Community Care Program did better than those in nursing homes. However, because Blacks were more likely to be placed in the Community Care Program than were Whites, this difference was confounded. In this case, the pooled difference score (+.14) is the more accurate estimate.

TABLE 4—Crude Difference in Proportion Improving or Maintaining Initial Score at 12 Months and Pooled Difference in Proportion Scores Controlling on Race

	Difference in Proportion	95% Confidence Interval
Activities of Daily Living		
Crude	+.18	−.07, +.43
Pooled	+.19	−.07, +.45
Instrumental Activities of Daily Living		
Crude	+.08	−.17, +.31
Pooled	+.08	−.19, +.35
Mental Status		
Crude	+.06	−.21, +.33
Pooled	+.14	−.12, +.40
Perceived Health		
Crude	−.15	−.39, +.09
Pooled	−.13	−.37, +.11
Life Satisfaction		
Crude	−.28	−.55, −.01
Pooled	−.29	−.58, +.004

Outcome: Nursing Goal Attainment

Community care patients did somewhat better than nursing home patients on nursing goal attainment, with 46 per cent of CCP patients meeting all three goals within three months, compared to 31 per cent of nursing home patients. This represents a 15 per cent difference in favor of the Community Care Program (95% CI −10%, +40%). Our findings also show that 88 per cent of CCP patients avoided deterioration in all three goals, compared to 69 per cent of nursing home patients—a 19 per cent difference in favor of the Community Care Program (95% CI −.01, +.39).

Outcome: Social Activities

One of the initial assumptions underlying the development of the Community Care Program was that living in a community-based foster home would facilitate interaction with family, friends, and neighbors. There was a tendency for community care patients to receive more telephone calls than nursing home patients in the first six months of the program, but by nine months into the program, phone calls to CCP patients had dropped to the level of nursing home patients (about one-third receiving calls once a week). On the other hand, nursing home patients had more frequent visitors at all time periods, although the visits dropped off for both groups during the year. Nursing home patients were also more likely to participate in social and recreational activities than were community care patients. This difference is especially marked in the first three months. By the time patients had been in the CCP for six months, rates of social participation increased, although they never attained the level of nursing home patients. Finally, community care patients were more likely than nursing home patients to get out of their place of residence; this difference holds for all four time periods.

Cost of Community Care Program

At the time of the Community Care Program, the average charge by nursing homes in Maryland was $36 per day, 31.5 per cent more expensive than the basic cost of providing community care (Table 5). However, this calculation may be misleading because indirect costs, such as transportation, physician, space, and respite care are not included. When these costs are included, the difference is reduced to 26 per cent. In addition, the average out-of-program health care costs were higher for the community care patients: $3.76 per day compared to only $0.23 per day for nursing home patients. Even when these additional costs are taken into consideration, however, the Community Care Program was 17 per cent less costly than nursing home care. While a difference of $6.59 per day may not seem very important, this amount represents a saving of $2,405.35 per patient per year. Thus a small foster care program with only 30 patients represents a potential savings of over $70,000 a year.

A more sophisticated analysis might take into account the use of community services such as day care centers, senior centers, buses, etc. Also, thought might be given to the cost/benefit to the larger community through consideration of the effect of the program on the caregivers and their families. It is possible that the CCP creates savings in social service programs such as general assistance, food stamps, energy assistance, etc., by stabilizing the income of the caregiver families.

TABLE 5—Estimated Cost of Community Care and Nursing Home Care (costs per patient per day)

	Community Care Program	Nursing Home	Difference	% Savings
	(a)	(b)	(b−a)	
Basic Daily Cost		$36.06		
Caregiver Payment:				
Patient Contribution	$6.54			
Program Contribution	$6.55			
Staff Salaries, Benefits	$11.61	—		
Total Basic Costs	$24.70	$36.06	$11.36	31.5%
Other Costs*	$3.40	$2.16		
Total Program Costs (Basic + Other)	$28.10	$38.22	$10.12	26%
Health Care Costs**	$3.76	$0.23		
Total Costs (Basic + Other + Health Care)	$31.86	$38.45	$6.59	17%

*Includes transportation, equipment, medication, respite, physician back-up, and indirect costs.

**Includes all charges to Medcad Medcare for medication, doctor visits, hospital use, transportation, etc.

Discussion

It was possible to provide foster home care, with no clear deleterious effect, to frail elderly patients who would otherwise have gone to nursing homes. Patients assigned to the Community Care Program had greater likelihood of improving or maintaining ADL and mental status scores (at 12 months), and were more likely to attain nursing goals (at three months). On the other hand, patients in nursing homes were more likely to maintain or improve life satisfaction scores (at 12 months). The social patterns in the two settings also differed: CCP patients were more likely to be getting out of the house, while nursing home residents were more likely to participate in social and recreational activities.

The results with respect to life satisfaction will be of concern to those wishing to advocate for foster care for the frail elderly. We considered several possible explanations for this finding.

The fact that the reliability (in this study, the life satisfaction index showed an interrater reliability of only .52) and validity of the short version of the life satisfaction index in this context are questionable may be a factor.** Recent research on this index shows that Black and White elderly may differ on factors predicting life satisfaction,[24,25] making the interpretation of life satisfaction more complex in studies with multi-racial populations.

If life satisfaction is lower in the Community Care Program population, an explanation may be found in reference group theory,[26] i.e., patients in the nursing home may have been comparing themselves with other nursing home patients. As this Nursing Home Group is limited to the severely impaired, they may have come to perceive their health as better than others their age. In contrast, patients in community-based foster homes (where they are usually the only frail elderly person in the home) may have compared themselves with the caregivers or with other age peers living in the neighborhood. Thus they may have come to feel themselves to be relatively worse off.

Also of concern are the results on social participation. Research on foster care for geriatric[12] and mentally retarded[27] populations has found social isolation to be a problem. Foster care programs in communities that do not have adequate resources for social activities (e.g., transportation, social

**The LSI-Z was originally tested on a healthy population of rural elderly. The reliability was considered by the authors acceptable only for males.[19]

programs for the frail elderly) may have to limit themselves to patients who are not interested in this type of activity.

The findings with respect to cost show that the direct cost of foster care is about 25 per cent lower than nursing home care, and these savings remain substantial even when additional health care utilization and costs of community social programs are taken into account.

Recent concern about the low rate of nursing home utilization in the Black population may spark interest in foster care programs. The CCP proved to be especially attractive to Blacks, both as patients and caregivers. (Foster home programs in other cities (e.g., New York,[16] Honolulu[15]) suggest that foster care is also acceptable to Whites and Asian groups.)

An interesting—and unanticipated—finding was that the mortality rate for patients who rejected either treatment alternative (CCP or Nursing Home) was very high. This finding suggests that the frail elderly who return to the community against the recommendation of the hospital staff constitute a very high-risk group.

The Community Care Program provided an alternative to nursing home care at a somewhat lower cost. Unlike many community-based programs considered to be alternatives, it provided what those most likely to enter nursing homes need—24-hour supervision and daily personal care.[28] Because this alternative appealed to those with minimal family resources who were in need of extensive care, the development of foster care programs is unlikely to create an extensive demand for service, as is often feared for community-based alternatives. The quality of care appears comparable to nursing home care, suggesting that a closely supervised caregiver can provide skilled care as well as personal care and supervision. As Callahan states, "One fact that seems clear is that the majority, but not all, of disabled elderly prefer to remain out of a nursing home if at all possible. We should strive to make this a reality."[8]

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REFERENCES

1. Vladeck BC: Unloving Care: The Nursing Home Tragedy. New York: Basic Books, 1980.
2. Palley HA, Oktay JS: The Chronically Limited Elderly. New York: Haworth Press, 1981.
3. Hicks B, Raisz H, Segal J, Doherty N: The triage experiment in the coordinated care for the elderly. Am J Public Health 1981; 71:991–1003.
4. Wiessart W, Wan T, Thomas T, Livieratos B: Effects and Costs of Day Care and Homemaker Services for the Chronically Ill: A Randomized Experiment. NCHSR Research Report Series. Department of Health, Education and Welfare, National Center for Health Services Research, Pub. No. (PHS) 79-3258. Washington, DC: Govt Printing Office, 1980.
5. Kane RL, Kane RA: Alternatives to institutional care for the elderly: beyond the dichotomy. Gerontologist 1980; 20:249–260.
6. Greenberg J, Beth D, Johnson A, *et al*: A Comparative Study of Long-Term Care Demonstration Project: Lessons for Future Inquiry. Minneapolis, MN: University of Minneapolis, Center for Health Services Research, 1980.
7. General Accounting Office: The Elderly Should Benefit from Expanded Home Health Care but Increasing these Services will not Insure Cost Reductions. Washington, DC: GAO/IPE 83-1, 1981.
8. Callahan JJ: How much, for what and for whom? Am J Public Health 1981; 71:987–988.
9. US Senate, Special Committee on Aging: Developments in Aging: 1980. Part I. Report 97th Congress, 1st Session. Washington, DC: US Congress, 1981.
10. Sherwood S, Morris JN: Pennsylvania's domiciliary care experiment: I. Impact on quality of life; and Ruchlin HS, Morris JN: II. Cost-benefit implications. Am J Public Health 1983; 73:646–660.
11. Steinhauer MS: Geriatric foster care: a prototype. Design and implementation issues. Gerontologist 1982; 22:293–300.
12. Sherman SR, Newman ES: Foster family care for the elderly in New York state. Gerontologist 1977; 17:513–519.
13. Linn MW, Klett CJ, Caffey EM: Foster home characteristics and psychiatric patient outcome. Arch Gen Psychiatry 1980; 37:129–132.
14. Mor V, Sherwood S, Gutkin C: A national study of residential care for the aged. Gerontologist 1986; 26:405–417.
15. Braun KL, Rose CL: The Hawaii geriatric foster care experiment: impact evaluation and cost analysis. Gerontologist 1986; 26:516–524.
16. Talmadge H, Murphy DF: Innovative home care program offers appropriate alternative for elderly. Hosp Prog 1983; 64:50–51, 72.
17. Oktay JS, Volland PJ: Community care program for the elderly. Health Soc Work 1981; 6:41–47.
18. Kahn RL, Goldfoils AI, Pollack M, *et al*: The relationship of mental and physical status in institutionalized aged persons. Am J Psychiatry 1960; 117:120–124.
19. Wood V, Wylie ML, Sheafor B: An analysis of a short self-report measure of life satisfaction: correlation with rater judgments. J Gerontol 1969; 24:465–469.
20. Katz S, Ford AB, Moskowitz RW, *et al*: Studies of illness in the aged: the index of ADL, a standardized measure of biological and psychosocial function. JAMA 1963; 185:914–919.
21. Lawton MP, Brody EM: Assessment of older people: Self-maintaining and instrumental activities of daily living. Gerontologist 1969; 9:179–186.
22. Lee ET: Statistical Methods for Survival Data Analysis. Belmont, CA: Lifetime Learning Publications, 1980; 76–84.
23. Usui WM, Keil TJ, Durng KR: Socioeconomic comparison and life satisfaction of elderly adults. J Gerontol 1985; 40:110–114.
24. Fleiss JL: Statistical Methods for Rates and Proportions. New York: Wiley, 1973.
25. Usui WM, Keil TJ, Phillips DC: Determinants of life satisfaction: a note on a race-interaction hypothesis. J Gerontol 1983; 38:107–110.
26. Merton RKL, Kitt A: Contributions to the theory of a reference group behavior. *In*: Merton RK, Laezarfield P (eds): Continuities in Social Research. Glencoe, IL: Free Press, 1950.
27. Willer B, Intaglata J: Promises and Realities for Mentally Retarded Citizens. Baltimore: University Park Press, 1984.
28. Doty P: Can Home and Community-Based Services Provide Lower Cost Alternatives to Nursing Homes? Washington, DC: Office of Policy Analysis, HCFA, 1984.

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A Prospective Study of Incident Comprehensive Medical Home Care Use among the Elderly

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Abstract: This prospective study directly examines, in a defined community population, the extent to which a wide array of characteristics predict utilization of an important long-term care (LTC) service—medical home care—over a two-year interval among the cohort of 3,706 people aged 65 or older. The overall age-sex adjusted rate of two-year incident home care use was 3.2 per cent. For both men and women, the rates among the aged 85 or older group were approximately 12 times the rates of those aged 65 to 74. The multivariate predictors of incident home care, adjusted for age and sex, were five: receiving help with at least one activity of daily living (ADL), being dependent in Rosow-Breslau functional health areas, being homebound, more errors in mental status items, and no involvement with social groups. The dominance of indicators of frailty in physical function and cognitive function are consistent with the predictors of another group of LTC clients, those who subsequently enter nursing homes. However, in the present study the ratios of medical home care use were similar for those living alone and for those living with others in the multivariate model, suggesting the possibility of differences between home care and institutional LTC clients. (*Am J Public Health* 1988; 78:255–259.)

Introduction

Home health care is an important component of comprehensive long-term care (LTC) services. At least as reflected by public funding, US health policy has emphasized institution-based LTC services such as those provided by nursing homes. In response to concerns of overreliance on nursing home services, quality and appropriateness of care, and cost containment, attention turned to alternatives such as community-based services in the mid and late 1970s.[1,2] Not only were home delivered services thought to be preferred by older people,[3] but it was argued that such options could reduce overall long-term care expenditures.[4–6] Several demonstration projects were initiated with the intent of testing whether the availability of a full array of long-term care services in fact would reduce aggregate expenditures.[7,8] While the findings from these studies differ in specifics, in general they suggest that expansion of community care has limited influence on institutional costs and thus increase total expenditures.[9–12]

Cost savings are dependent to a large degree upon individuals receiving home care as a substitute for nursing home care, but these studies raise the question of whether home care programs and nursing homes were drawing clients from the same population. Appelbaum[13] and colleagues note that only 7.2 per cent of participants in the National Channeling Demonstration Projects were either applicants or on waiting lists for nursing home placements. Increased knowledge of the risk factors associated with home care utilization is an important step in resolving this question.

There currently are no prospective community-based studies of the characteristics predictive of enrollment in medical home care programs among older persons in the US. The present prospective study examines the relationships between a number of baseline characteristics and subsequent entry into a comprehensive medical home care program over a two-year interval among residents aged 65 years or older in a geographically defined community.

Methods

Subjects

Between January 1982 and December 1983, we identified and attempted to interview all persons aged 65 and older in East Boston, a geographically defined community that is part of the National Institute on Aging's four-site project to develop Established Populations for Epidemiologic Studies of the Elderly (EPESE).[14] Enumeration of all household residents was completed with 99.8 per cent of East Boston households. The population aged 65 years and older numbered 4,485, of whom 3,663 (82 per cent) completed the interview in person and 149 (3 per cent) completed the interview at least partly by proxy (n=3,812). The remaining non-participants (15 per cent) were not different in gender but were slightly older and more likely to be living with others than the participants.* The baseline home interview and examination, which averaged approximately 70 minutes, included information on demographic characteristics, height, weight, blood pressure, pulmonary function (peak expiratory flow rate), health status, medical history, symptoms, medications, smoking and alcohol use, functional status and activities of daily living, cognitive function, depression, social networks, and utilization of health and social services. The lay interviewers received extensive training in the uniform administration of the structured questionnaire and the taking of measurements.

Comprehensive Medical Home Care

Persons categorized as incident home care clients were those who entered in the East Boston Neighborhood Health Center (EBNHC) Medical Home Care Program up to 24 months after the baseline interview (n=112). The EBNHC is a community-directed, comprehensive health center that is the major provider of primary medical care to the residents of East Boston. The EBNHC has had a Medicare- and Medicaid-certified Medical Home Care Program for elderly and chronically disabled homebound persons living in East

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Boston since 1972. This program uses a medical model of managed home care in which a multidisciplinary team of physicians, nurse practitioners, nurses, social workers, physical therapists, and homemaker/home health aids works closely together to provide coordinated medical and social services for homebound elderly for an indefinite duration.

Using the EBNHC Home Care registration files, which include dates of admission and discharge from home care, it was possible to identify all study participants who subsequently received home care within 24 months of their initial interview (n=112). The prevalent home care participants (n=105) were excluded from the analyses.

Study Variables

The events of interest in this analysis are whether the elderly cohort members began to receive medical home care within 24 months of their own baseline interviews. Of the 3,707 study participants not enrolled in the Home Care Program at the beginning of the study, 112 enrolled for an unadjusted rate of incident home care during this 24-month interval of 3.0 per cent. Although the EBNHC Medical Home Care Program is a large home care provider in this area, this rate does not represent total more broadly defined home care use in the study community. Two other types of home care are not included—home health provided by the Boston Visiting Nurse Association (BVNA), and social home care provided by the Massachusetts network of Home Care Corporations. The BVNA program services about 40 per cent of its clients under a Medicare model of short-term rehabilitative home care following hospitalization, and the remaining clients do not receive managed care through a nurse practitioner as is the case with the EBNHC program. The Home Care Corporations emphasize longer term assistance with maintaining a household in the community by providing homemaker, chore, and home-delivered meal services, and do not provide the services of physicians, nurses, or other medical providers. They sometimes share clients with the EBNHC Home Care Program.

We examined the association of 21 independent variables, each derived from the 1982–83 baseline interview, with subsequent Home Care Program participation. These variables were chosen because they comprise the range of variables suggested by previous research as associated with use of LTC services, and include six demographic characteristics, six informal support network characteristics, four functional status indicators, two mental status indices, and three health care status variables.

Among the demographic variables, *marital status* was examined as three dichotomies: currently married or not; currently widowed or not; and currently widowed, divorced, or separated versus not. Similarly, *living arrangement* was examined as two dichotomies: living alone or not; and living with one other person age 75 or older or not. Among the informal support network characteristics, *children's proximity* was derived from the respondents' estimate of whether or not any of their children lived within a 30-minute commute.

Among the functional status indicators, *ADL status* designates elders who use assistance in performing one or more of six basic activities of daily living: bathing, dressing, transferring, eating, walking across a small room, and grooming.[15,16] The *Rosow-Breslau Functional Health Scale* identifies those who report they are unable to perform at least one of three activities: walking a half mile, climbing stairs, and doing heavy housework.[17] Instrumental activities of daily living (*IADL status*, differentiates those who need help with at least one of the following areas necessary to maintain a household in the community: grocery shopping, food preparation, transportation, and housekeeping. IADL status was dichotomized and examined in two ways: those whose help with IADL comes from formal or paid sources versus all others, and those who receive either formal or informal help versus those who use no help at all.

Among the mental status indicators, *mental status questionnaire score* differentiates those who make five or more errors on nine items from a mental status questionnaire variant.[18] The *depression* variable differentiates those who answer five or more of 10 items from a modification of the Center for Epidemiological Studies-Depression Scale (CES-D)[19] in the depressed direction from those who answered four or less in the depressed direction. The modification retained 10 of the original 20 CES-D items and offered two rather than four response categories. Imputed scores were derived for 193 people who answered all but one of the mental status or depression items. The missing item was given a value equal to the mean of the individual's other items, rounded to the nearest whole number.

The variables selected as measures of health care status were self-reported hospitalizations in the year prior to interview, having a usual source of medical care, and self-assessed health.

Survival analysis methods were used to analyze these data.[20] The dependent variable was time to home care from the baseline survey (from one to 24 months). Those who died or entered nursing homes during this period were considered censored as of the time of this event. Those who remained in the community were censored at 25 months. Age- and gender-specific incidence rates were obtained from Kaplan-Meier curves evaluated at two years for each subgroup. Overall age-sex-adjusted rates were obtained by weighting the subgroup-specific rates to the age-sex distribution of the total population. Incidence rate ratios (relative risk estimates) and confidence intervals (CIs) were obtained from Cox proportional hazards models stratifying by age and gender. All estimates therefore are adjusted for age and gender. Variables considered important whose 95 per cent CI did not overlap unity when examined individually were simultaneously entered into a Cox model. These analyses were run using PROC PHGLM of the Statistical Analysis System.[21]

Results

Bivariate Predictors of Medical Home Care Use

Table 1 presents the age- and sex-specific rates of entering medical home care for the total population and for each level of the independent variables. In addition, the overall age-sex adjusted rates for each level of the independent variables, the incidence rate ratio for the predictor variable, and the confidence intervals of the predictor variable (adjusting for age and sex) are presented. Rates of incident home care utilization within the over 65 population were strongly related to age. For both men and women, those aged 85 or older had rates of entry approximately 12 times those of the 65–74 age group.

In analyses adjusted for age and sex only, those entering medical home care were generally similar to the others with respect to the demographic measures.

With regard to informal support network characteristics, individuals with no group memberships were 2.3 times as likely to enter home care; those with no children within a

TABLE 1—Rates of Two-Year Incident Medical Home Care Use for Selected Characteristics by Age and Sex among Community-Dwelling East Boston Senior Health Project Participants

Selected Characteristics	(N)	Males by Age			Females by Age			Age-Sex-Adjusted Rate	Incident Rate Ratio[a]	95% Confidence Intervals
		65–74	75–84	85+	65–74	75–84	85+			
Total Population Demographics	(3706)	11	51	126	15	43	176	32	—	—
Education										
Elementary or less	(1899)	10	54	130	17	43	174	35	1.19	0.79–1.84
More than elementary	(1753)	11	50	143	13	30	125	29		
Marital status-A										
Currently married	(1758)	13	47	162	12	43	293	40	1.17	0.76–1.80
Not currently married	(1947)	04	41	98	17	42	166	30		
Marital status-B										
Widowed	(1409)	00	62	98	15	39	181	31	0.96	0.63–1.47
Not widowed	(2297)	12	48	148	14	49	149	34		
Marital status-C										
Widowed, Divorced, Separated	(1600)	07	53	89	15	40	175	31	0.89	0.58–1.35
Not	(2106)	12	51	160	15	48	181	36		
Living arrangement-A										
Alone	(1409)	06	22	88	16	48	159	29	0.88	0.58–1.30
Not alone	(2297)	12	61	145	14	37	197	35		
Living arrangement-B										
Living with one age 75 or older	(444)	00	62	142	27	34	500	51	1.30	0.79–2.15
Not	(3257)	11	48	116	13	44	160	32		
Medicare										
Covered	(3363)	12	56	129	15	41	199	35	3.01	0.95–9.47
Not	(292)	00	00	167	08	27	00	13		
Medicaid										
Covered	(883)	06	28	157	32	87	142	40	1.41	0.84–2.10
Not	(2746)	12	56	123	09	26	205	30		
Income										
Less than $7,000 per year	(1818)	15	37	85	18	43	180	33	1.07	0.68–1.74
$7,000 or more	(1357)	09	53	308	08	26	00	25		
Informal Support Network										
Living children										
None	(733)	08	29	53	23	40	48	24	0.77	0.48–1.30
One or more	(2804)	12	58	149	13	42	197	35		
Children's proximity										
More than 1/2 hour	(1080)	04	20	42	15	28	109	20	0.55	0.34–0.91
Within 1/2 hour	(2564)	14	66	152	15	45	185	37		
Close friends										
None	(874)	10	69	162	28	30	210	40	1.33	0.89–1.98
One or more	(2774)	11	42	118	12	44	155	31		
Contact with close friends										
Fewer than 3 seen monthly	(2109)	14	71	141	17	36	200	37	1.42	0.94–2.16
3+ seen monthly	(1532)	09	23	126	12	46	92	26		
Death in last year of close friend or relative										
Yes	(1787)	15	30	151	17	39	172	33	1.01	0.69–1.48
No	(1879)	07	73	112	13	41	156	32		
Social group involvement										
Not involved	(2288)	14	65	156	16	50	215	40	2.27	1.36–3.74
Involved	(1307)	07	27	89	13	21	00	16		
Functional Status										
Homebound										
Yes	(205)	144	154	375	124	112	312	146	4.53	2.89–7.12
No	(3234)	10	44	88	07	43	144	28		
ADL status										
Receive help with at least one of the 6 areas	(647)	78	150	244	59	114	283	99	6.22	4.15–9.32
No help received	(3092)	04	29	79	09	17	88	17		
Rosow-Breslau Functional Health Scale										
Unable to do at least one of 3 areas	(1731)	30	85	157	24	65	191	51	5.90	3.01–10.03
Able to do all	(1899)	03	19	48	06	00	182	15		
IADL status-A										
Help from formal source	(320)	00	66	270	11	119	364	57	3.04	1.96–4.70
Self-sufficient or informal help	(3259)	11	52	75	14	20	128	26		
IADL status-B										
Formal or informal help	(1052)	07	61	158	44	73	201	52	3.16	2.02–4.95
Self or spouse	(2563)	12	49	74	08	10	50	17		
Mental Status										
Mental Status Questionnaire[b]										
5 or more of 9 in error	(158)	59	161	380	91	75	288	105	3.06	1.79–5.23
4 or less of 9 in error	(3350)	09	36	90	13	35	138	27		
Depression[b]										
5 or more of 10 CES-D items	(725)	44	82	213	21	56	284	58	2.09	1.36–3.20
4 or less	(2768)	05	41	109	11	34	146	26		

(continued p 258)

TABLE 1—Continued

Selected Characteristics	(N)	Males by Age			Females by Age			Age-Sex-Adjusted Rate	Incident Rate Ratio[a]	95% Confidence Interval
		65–74	75–84	85+	65–74	75–84	85+			
Health Care Status										
Hospitalization history										
Hospitalized in year before baseline	(728)	2.4	8.7	7.2	3.3	3.8	8.5	4.0	1.20	0.76–1.8x
Not	(2908)	0.8	3.4	15.0	1.2	4.4	22.5	3.3		
Usual source of medical care										
Has one	(3277)	1.3	5.2	15.0	1.4	4.3	18.9	3.4	1.24	0.85–2.2x
Does not	(452)	0.0	4.7	0.0	1.8	3.9	27.3	3.2		
Self-perceived health										
Poor	(288)	6.1	15.9	16.7	4.2	7.2	22.0	7.6	2.71	1.89–4.3x
Excellent, good, fair	(3371)	0.8	4.0	11.8	1.1	3.6	16.5	2.8		

[a] Relative risk of home care use for those possessing the variable of interest compared to those not possessing that variable, adjusted for age and sex; rate ratio is calculated with the Cox model rather than with the ratio of age-adjusted rates.
[b] With imputed values for one missing item for 158 respondents.

30-minute trip were only half as likely (.55) to enter home care.

In contrast to the patterns observed with demographic variables, all measures of impaired functional status tested were strong predictors of subsequent home care utilization in the analyses adjusted only for age and sex.

Individuals with five or more mental status questionnaire errors were three times as likely to use home care as those with fewer errors; individuals reporting five or more depressive symptoms were two times as likely to enter home care as were those reporting fewer depressive symptoms.

Those who had a hospitalization history prior to the baseline interview or a usual source of medical care did not differ with respect to risk of home care entry from those who did not. However, individuals assessing their health as poor were nearly three times as likely to use home care as those assessing their health as excellent, good, or fair.

Multivariate Predictors of Medical Home Care Use

We assessed the ability of nine predictors, adjusted by age and sex, to predict subsequent home care utilization independently as candidate variables for a Cox proportional hazard regression model with time to incident home care use as the dependent variable. Table 2 presents the results; five variables are predictive of incident medical home care use, after controlling for the simultaneous influence of all the other factors: receiving help with at least one ADL, being dependent in Rosow-Breslau functional health areas, being homebound, more errors in mental status items, and no involvement with social groups.

TABLE 2—Relative Risk of Two-Year Medical Home Care Incidence among Community-Dwelling East Boston Senior Health Project Participants Adjusted by Age and Sex as Estimated by Cox Proportional Hazards Model (N=3,269)

Candidate Variables	Relative Risk	95% Confidence Interval
Informal Support Network		
No social group involvement/Yes	1.85	1.04–3.32
No child within 30 minutes/Some	0.71	0.41–1.24
Functional Status		
Homebound/Not	2.08	1.19–3.57
Receive help with one or more ADL/Not	3.47	2.07–5.81
Dependent on Functional Health Scale/Not	3.02	1.37–6.65
Formal IADL help/No help or informal help*	1.34	0.79–2.29
Formal or informal IADL help/None*	1.51	0.87–2.65
Mental Status		
More mental status errors/Less	2.68	1.55–4.66
More depression/Less	1.28	0.79–2.08
Health Care Status		
Poor self-perceived health/Excellent, good, or fair	0.73	0.30–1.78

Proportion of Likelihood Explained—.088
*Each of the two characterizations of IADL were included in each of two separate Cox Proportional Hazard Models, not in the same model.

Discussion

This two-year prospective study investigates directly an important LTC service, namely medical home care, and has the advantage of collecting data on predictors of home care before the individual enters home care. Further, the comparison group is an unselected population, namely almost everyone (85 per cent) aged 65 and older living in the community.

The multivariate analysis presented here suggests that persons at elevated risk for subsequent medical home care are those who have substantial limitations in physical function, cognitive function, and social function. Interestingly, none of the demographic characteristics—education, marital status, living arrangement, or income—were associated with subsequent use of medical home care to any important extent.

These findings lend partial support to studies using criteria of need for assistance because of functional disability and limited informal support as evidenced by marital status to estimate the total size of the potential LTC population. For example, Weissert used the criteria of physical limitations (i.e., dependencies in personal care, mobility, household activities, or home delivered health care services) to estimate the size of the potential LTC population; he concluded that the total 1979 LTC population was 5.7 million, including 2.9 million people aged 65 or older (12.7 per cent of the noninstitutionalized aged).[23]

In a different effort, a multivariate analysis of a prospective cohort in Massachusetts persons aged 65 or older identified predictors of nursing home placement, one subgroup of the LTC population.[16,25] That study identified six non-medical characteristics associated with subsequent nursing home placement: two demographic characteristics (advancing age and living alone), three indicators of limitations in physical function (dependency in ADL; dependency in instrumental ADL such as shopping, food preparation,

housekeeping; and using ambulation aids), and an indicator of cognitive limitation (interviewer judgment of mental disorientation).

At an elementary level, the similarities are striking between the findings of the present study of predictors of medical home care and the criteria used in the earlier studies to estimate the size of an undifferentiated LTC population and the predictors of nursing home placement in other studies. Substantial physical and cognitive limitations are central in each study. Living alone or otherwise lacking an informal support network frequently has been a criterion for identifying the LTC population and usually has been a risk factor characterizing the important LTC subgroup who are in nursing homes. In the present study, however, rates of medical home care use were similar for those living alone and for those living with others.

Differences in this basic demographic characteristic between home care and institutional LTC or clients may have substantial implications. The assumption of substitutability of LTC services is a basic tenet of many current LTC policies. Medicaid administrators (as the primary government payors for institutional LTC) recently have tried to restrict Medicaid LTC expenditures for home-based as well as institutional services to their traditional clients: those who request institutional placement and who are both medically and economically eligible for institutional LTC. Based on the assumption of substitutability, their approach is to approve state requests for demonstration projects to use Medicaid funds for alternative (i.e., noninstitutional) services within an expanded continuum of care only for clients who would be medically eligible for institutional care. The Medicaid-waivered demonstration funds are for substituted or alternative services for traditional clients, not for new or additional services for a new group of clients.

The results of this study thus raise the possibility of a difference between the characteristics of home-care and institutional LTC clients. A more definitive test of this hypothesis can be pursued in the near future with additional data from East Boston. It will be possible to conduct an analysis in which the characteristics of three groups can be compared simultaneously: those who receive subsequent home care, those who receive subsequent institutional LTC, and those who subsequently receive neither. In that analysis, a direct comparison of characteristics which differentiate incident home care clients from incident nursing home patients from the same population will be tested.

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REFERENCES

1. Kovar M. Home cares? N Engl J Med 1986; 314:917–920.
2. Lentz W. Long-term care for the elderly: Public dreams and private realities. Inquiry 1986; 23:136–148.
3. Congressional Budget Office. Long-Term Care for the Elderly and Disabled. Washington, DC: Govt Printing Office, 1977.
4. Callahan JJ. How much, for what, and for whom? Am J Public Health 1981; 71:987–988.
5. Branch LG, Stuart NE. A five-year history of targeting home care services to prevent institutionalization. Gerontologist 1984; 24:387–391.
6. Branch LG. Home care is the answer. What is the question? Home Health Care Serv Q 1985; 6:3–11.
7. Baxter R, Applebaum R, Callahan J, *et al*. The Planning and Implementation of Channeling: Early Experiences of the National Long-Term Demonstration. Princeton, NJ: Mathematica Policy Research, 1983.
8. Greenberg J, Deutz W, Abrahams R. The national social health maintenance organization demonstration. J Ambul Care Management 1985; 8:32–41.
9. Capitman J, Haskins B, DeGraff B. Evaluation of Coordinated Community Based Long-Term Care Demonstrations: Final Report. (HCFA Pub 500-90-0037) Berkeley, California: Berkeley Planning Associates, 1984.
10. Hughes SL, Manheim LM, Edelman PL, Conrad KJ. Impact of long-term home care on hospital and nursing home use and cost. Health Serv Res 1987; 22:19–48.
11. Weissert W. Toward a continuum of care for the aged: A note of caution. Public Policy 1981; 29:331–340.
12. Weissert W. The cost effectiveness trap. Generation 1985; 9:47–50.
13. Applebaum R, Baxter R, Callahan J, Day S. Targeting services to the chronically disabled elderly: The preliminary experiences of the National long term care channeling demonstration. Home Health Serv Q 1985; 6:57–79.
14. Corsini-Huntley J, Brock DB, Ostfeld AM, Taylor JO, Wallace RB (eds). Established Populations for Epidemiologic Studies of the Elderly: Resource Data Book 1986. Washington, DC: Govt Printing Office, NIH Pub No 86-2443, 1986.
15. Katz S, Ford A, Moskowitz R, Jackson B, Jaffe M. Studies of Illness in the Aged. JAMA 1963; 185:914–919.
16. Branch LG, Katz S, Kniepmann K, Papsidero JA. A prospective study of functional status among community elders. Am J Public Health 1984; 74:266–268.
17. Rosow I, Breslau N. A Guttman scale for the aged. J Gerontol 1966; 21:556–559.
18. Pfeiffer E. A short portable mental status questionnaire for the assessment of organic brain deficit in elderly patients. J Am Geriatr Soc 1975; 23:433–441.
19. Radloff LS. The CES-D scale: A self-report depression scale for research in the general population. Appl Psychol Meas 1977; 1:385–401.
20. Kalbfleisch JD, Prentice RL. The Statistical Analysis of Failure Time Data. New York: John Wiley & Sons, 1980.
21. SAS Institute: SUGI Supplemental Library User's Guide, 1983 Ed. Cary, NC: SAS Institute, 1983.
22. Brody SJ, Poulshock SW, Masciocchi CF. The family caring unit: A major consideration in the long-term support system. Gerontologist 1978; 19:556–561.
23. Weissert WG. Estimating the long-term care population: prevalence rates and selected characteristics. Health Care Financ Rev 1985; 6:83–91.
24. Branch LG, Jette AM. A prospective study of long-term care institutionalization among the aged. Am J Public Health 1982; 72:1373–1379.
25. Branch LG. Relative risk rates of nonmedical predictors of institutional care among the elderly. Comprehens Ther 1984; 10:33–40.

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Case managers face special challenges in working with elderly clients who need long-term care. To meet these challenges they require population-specific training in understanding clients, analyzing the service environment, and in mastering techniques of case management. Ongoing support and supervision is also an essential aspect of good case management practice.

Key Words: Community-based care, Service coordination

Training Needs for Providing Case Management for the Long-Term Care Client: Lessons from the National Channeling Demonstration[1]

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The use of case managers to coordinate the care of chronically disabled older persons has increased in community-based, long-term care programs. Inspired by a series of national demonstrations conducted during the 1970s and 1980s that expanded case-managed community-based services and promoted by recent federal legislation broadening Medicaid coverage for noninstitutional long-term care (Section 2176 of the 1981 Omnibus Reconciliation Act), case management is now included in numerous state and local programs as a key service component (Austin et al., 1985; United States Department of Health and Human Services, 1984). Despite this growth in the provision of case management services, information about the activities, responsibilities, and training needs of case managers has not increased at a comparable rate. To meet this need for information about the case management role, particularly the training and supervisory needs of case managers, data are presented from a study of case management conducted as part of the National Long-Term Care Demonstration, a 10-state research and demonstration program in which the effects of case-managed community-based long-term care were examined. Channeling refers to the specific intervention used in the demonstration to arrange and coordinate services needed to help impaired elderly persons remain in the community.

The increased use of case management in long-term care service has generated considerable discussion about the precise definition of case management. What is case management for long-term care clients? And whatever it is, how does long-term care case management differ from typical case management practice?

Case management is certainly not a new concept. As noted by White (1987): "The principal function of case management — that of obtaining essential resources on behalf of clients in collaboration with both formal and informal sources — is rooted in social casework, community health, and related practice" (p. 93). A variety of case management models have been described and virtually all providers of direct services reported managing their cases (Dronska, 1983). Thus there are many individuals involved in some type of case management in the existing service system. The type of case management that is service-centered and largely provided in conjunction with direct services, however, is different from comprehensive long-term care case management. Distinguishing features of long-term case management are intensity, breadth of services, and duration (Kemper et al., 1986). Intensity refers to the amount of time the case manager has to spend with each client (caseload size is the key determinant). Breadth of services, in turn, refers to the scope of clients' problems, and the case manager's perception of the services needed to respond to the problems. Breadth is assumed to be encouraged by a structured and comprehensive assessment and care planning process, as well as by supervisory review. Duration refers to how long the case manager is involved with the client, using as indicators of long-term involvement formalized reassessments scheduled at routine intervals and regular monitoring of the clients' conditions and the services received.

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These three factors distinguish long-term care case management from other types of case management, including the care provided by hospital discharge planners, home health agencies, and county and city social service departments where there are limitations on intensity, duration, or breadth of services. Given growth trends, long-term care case management appears likely to continue because of the expanded involvement of case managers in activities such as nursing home pre-admission screening and managed health care programs (Abrahams & Leutz, 1983; Iversen, 1986). When these trends in community-based long-term care are combined with demographic projections of a continued increase in the population in need of such care, it appears that case management will become an even more important component of the health and social service system in general and long-term care in particular.

The Study

The National Long-Term Care Channeling Demonstration provided case management to disabled older persons thought to be at risk of nursing home placement (Kemper et al., 1986). Each of the 10 channeling agencies employed 4 to 10 case managers, depending on agency caseload, who carried caseloads of 45 to 55 clients and were responsible for conducting a comprehensive assessment, completing a formalized care plan, arranging both formal and informal services included within the plan, and conducting ongoing case monitoring that included a formalized reassessment.

Although case managers at all 10 sites performed these functions, there were two major variants in the demonstration that affected case management practice. In five states, where the intervention was termed The Basic Case Management Model, case managers had only limited funds to purchase services outside of the traditional funding sources (average, $40.00 per person per month). At the remaining five sites, where The Financial Control Model was used, through a waiver of Medicare, case managers had extensive authority over community-based health and social services (average, $400.00 per person per month). Staffing patterns were, however, similar because most case managers had baccalaureate or master's degrees in social work and the remainder had been trained in nursing or other related health or human service fields. Supervisory staff were either master's level social workers or public health nurses with considerable experience in gerontology.

Three sources of data were used to document the case management experience of the demonstration. The primary source was a cross-site process analysis conducted as part of the national evaluation (Carcagno et al., 1986) that included two rounds of in-person interviews with case managers and their supervisory staff, referral sources, and providers at each of the 10 sites. Over 400 interviews were conducted as part of this component of the study. Supplementing these interviews was quantitative information on case management activities such as the amount of time it took to arrange services after a client was referred to the program. The second data source was the recording of the case management experience by the agency director at one of the sites. The third data source was a study of the assessment and care planning process at each of the 10 sites, as conducted by the demonstration technical assistance staff (Schneider et al., 1986).

Training Needs of Case Managers

A review of the demonstration experience led to classifying the training needs of case managers in three major categories. The first category was related to the need to understand the client and included knowledge of health and disability limitations, health conditions, morbidity and mortality patterns, and mental health needs. A second category of training needs was associated with understanding the environment, including awareness of service providers, eligibility criteria, service unit costs, methods of negotiating with and monitoring providers, working with physicians and other medical professionals, and support mechanisms for informal care givers. The third category encompassed mastering techniques of case management, including functions of assessment, care planning, and ongoing monitoring (including reassessment), performing multiple roles, and time management.

It should be emphasized that these training needs are in addition to the standard professional training required by those in the various disciplines who are involved in this type of professional activity (Schneider et al., 1984).

Understanding the Client

Despite most case managers having had previous experience in working with older persons, the frailty of the channeling population posed some unanticipated challenges. For example, channeling clients had on average between 2 and 3 disabilities in activities of daily living and over 22% were unable to perform any of the five basic activities of daily living (eating, bathing, transfer, toileting, and dressing). Over half reported being incontinent and over 80% required assistance with mobility. The client group also had a high rate of mortality: 30% had died 12 months after entry into the program (Kemper et al., 1986). The frailty of these clients placed case managers under considerable stress because of the clients' considerable service needs and because of the emotional strain suffered by the case managers in losing such a high proportion of clients. Despite experience in working with older persons and professional training in social work and nursing, case managers were unprepared for the high rates of morbidity and mortality. This lack of preparation meant that a strong support structure for case managers was a necessity.

Because clients had considerable health problems, nursing supervisors or consultants helped complete

care plans. Case managers who were not nurses consistently reported the need for more knowledge about specific health conditions and medical procedures. In general, case managers needed to know how to identify client needs that might require nursing care or advice (e.g., clients having decubiti, taking multiple medications, or experiencing incontinence). Additionally, it was reported that some health knowledge, including training in medical terminology, would enable case managers who were not nurses to communicate more effectively with home health agencies, hospitals, and physicians.

A final training area in this category involved the mental health needs of clients and family care givers. Although project coordinators expected clients to have cognitive and mental health problems, the magnitude of these problems was considerably greater than anticipated. Although detailed objective information on cognitive status was limited, program clients missed on average between 3 to 4 items of the 10 Short Portable Mental Status Questionnaire items and about half were judged by a proxy to have some type of cognitive impairment. Responding to a survey on the mental health needs of channeling clients, project case managers estimated that almost one-third of their clients displayed signs of clinical depression and that 10% exhibited disruptive behavior at home (Eisenberg et al., 1983). Case managers encountered several barriers to obtaining mental health services for clients, including the unwillingness or inability of mental health service staff to make home visits for treatment, the cost of services, and the stigma associated with seeking such services (Wilson, 1983). Case managers reported needing additional information about how to recognize signs of cognitive impairment, affective disorders, and long-term personality disorders and how to work with clients experiencing these problems. They also identified a need for training in the relationships between the physical and mental health conditions and how to identify priority situations requiring professional evaluation.

Understanding the Environment

To supplement their understanding of the long-term care client, case managers and supervisory staff needed training encompassing a series of environmental factors. Because arranging services is a key case management function an extensive knowledge of the long-term care system was considered essential. This entails not only knowing the variety of providers and the eligibility criteria for major in-home and congregate care programs, but also knowing the funding streams and unit costs for specific services. Although nurse-case managers reported a greater need for this kind of training, most case managers needed extensive details about the community-based care system in their geographic areas. Program supervisors helped case managers acquire a working knowledge of community services by providing resource directories and summary sheets of agency services, eligibility criteria, and unit costs. Orientation visits to other programs and shadowing service providers during their routine activities were also identified as useful training experiences.

Case managers reported that a considerable amount of time was spent negotiating with formal and informal service providers to arrange appropriate care for their clients. Many clients also needed assistance with hospital entry and discharge. Although traditional professional training provided a good base for this brokering role, negotiations with health personnel were reported to be difficult. Case managers with social service training had particular problems in communicating with physicians and home health agency personnel. The lack of familiarity with medical conditions and terminology, as noted earlier, was a serious limitation in working with the health providers. Because physicians played a key role in helping clients to select long-term care alternatives, these limitations, which restricted interaction between physicians and case managers, were seen as a major obstacle to optimal care. Case managers and supervisors agreed that specific training modules in recognizing important medical conditions and on interacting with the health sector were necessary. Some of the impaired elderly clients faced the decision of whether continued residence in the community was feasible or whether nursing home care was appropriate. Case managers requested training about their role in this decision-making process, specifically in how to assist with arrangements for nursing home care and financing and how to respond to the various attitudes and emotions that accompany the nursing home placement process (Schneider et al., 1986).

Knowledge of the mechanisms needed to monitor providers of care was also identified as a major need. Case managers reported that the formal in-home services that they arranged for clients required considerably more monitoring than they had anticipated. Techniques such as using informal care givers and skilled care providers to monitor semi-skilled in-home services were used. Case managers also attempted to schedule visits when the service was scheduled. Case managers also provided checklists of tasks to be completed and called during provider visits specifically to monitor services. Although case managers indicated that these procedures were useful, they consistently reported needing to know how to improve monitoring mechanisms and to create new ones.

The service environment also encompasses case managers' interactions with the clients' informal support systems. In the program's policy and procedures the importance of working with informal care givers and trying to support and increase their help to clients was emphasized. About 63% of all clients lived with at least one family member, most often a spouse or spouse and children (31%). Although the impaired older person was the identified client, case managers soon recognized they were working with families and friends whose needs for counseling and support became significant in maintaining an im-

paired person in the home. Case managers also encountered a double challenge in serving impaired older couples in which the spouse who was the care giver was also experiencing chronic impairments. Given the importance of informal care givers and the roles they play in the lives of clients, case managers needed training in how to work with them as proxy decision makers, service providers, and primary case managers, yet always recognizing them as persons in need of support.

Mastering Techniques of Case Management

A third set of training issues, focused on techniques of case management. Despite the professional orientation of staff and the formalized training they received prior to practice, case managers and their supervisors constantly reported that case managers needed more training in core activities such as assessment and care planning. For example, they needed help using the standardized and comprehensive assessment form that differed substantially from the more narrow discipline-focused forms familiar to many case managers from previous practice. Understanding the importance of a broad-based assessment tool and knowing how to solicit information through objective interviewing, observation, and contacts with collaterals of the client were reported as essential to providing good case management. Designing standardized, goal-oriented, and comprehensive care plans that included a range of formal and informal services selected with specific cost constraints was also identified as a task requiring additional training. Because the financial control model included a cap on service expenditures, supervisory staff reported a conflict in the dual role of channeling case managers, who were required to be both service advocates and gatekeepers. Recognizing these responsibilities and providing appropriate training and supervision were considered important. Finally, as noted earlier, how to monitor formal providers and how to work with informal providers were skills requiring training.

Despite having comparatively low caseloads, case managers found it difficult to fulfill their multiple roles in serving extremely impaired clients and burdened care givers, especially because both groups had many emotional needs. Case managers with a social service orientation reported particular difficulties with the time demands. A common conflict for social service case managers was balancing their orientation as case workers against being case managers (Amerman et al., 1983). Afforded few alternatives for meeting the support and mental health needs of clients and families, case managers needed training, supervisory support, and consultation on how to accomplish their brokering tasks within a manageable framework. In addition to training in fulfilling clearly defined case management roles, time management training was also necessary to help workers juggle administrative demands, client contacts, and provider interactions.

Implications for Case Management Training and Supervision

Given the projected increase in the population in need of long-term care and the expected emphasis on exploring community-based alternatives for it, using case management to coordinate community-based long-term care is expected to continue. Program directors must recognize some of the special aspects of working with severely disabled older persons attempting to maintain residence in the community and organize services and prepare staff accordingly. Indicated by the review is that in addition to standard professional training received by social workers, nurses, and other human service professionals, case managers require a special combination of skills and experiences.

The kind of training needs identified are critical for program planners and architects of large-scale management programs, program managers and supervisors involved in ongoing service programs, and professional educators with responsibility for training potential case managers. All must recognize the necessity for a supportive environment, including adequate supervision.

For those with design responsibilities for long-term care case management programs, the staffing patterns and supervisory approaches are of particular importance. No matter how well case managers are trained, a program with an unrealistic ratio of clients to case managers will experience problems. Recommended caseload sizes for case managers range from 45 to 75, with variation a result of such factors as the administrative demands of the role, characteristics of clients served, the available clerical support, and the environmental and geographic differences of the community. Although researchers have not conclusively determined the optimum caseload, practice experience in the Channeling Demonstration indicated that handling more than about 55 or 60 cases was extremely difficult. Thus, those designing case management programs must recognize that caseload is a critical variable.

In addition to reasonable caseloads the experience suggested that an interdisciplinary balance between health and social service personnel is necessary. A balanced staffing configuration provides an opportunity to share information, to supply peer support, and to offer peer supervision. Community-based long-term care represents a middle ground between health and social services and thus must actively involve personnel from both areas.

As well, staffing requirements must allow for regular supervision as an essential element of case management practice. Supervisors must provide technical assistance, caseload coverage, and support to case managers if quality and continuity of service provision is to be insured and maintained. Supervisors must also provide emotional support to limit the burnout experienced by case managers who serve physically and mentally impaired clients and their care givers. They must not only be able to help case managers use their time efficiently but also to iden-

tify individual workers who need additional training or administrative procedures that need streamlining.

Because they oversee the problems and struggles of several case managers, program supervisors should recognize practice issues that cannot be resolved through the efforts of an individual case manager but which need to be addressed by administrative staff. For example, inadequate performance of in-home services identified by several case managers could be remedied more effectively by revising a contract than by increasing training in provider monitoring.

Although the choice of training topics is important, of greater significance, as noted earlier, is the emphasis on training. The demonstration experience indicated that success demands sufficient time for orientation and training. Because most academic training is discipline-based, case managers working in a long-term care program will have specific training needs. The need to educate staff outside of their discipline also has implications for hiring practices. Program supervisory staff suggested that case managers who were unable to accept a broader role or to acquire skills in a new area were frustrated. For example, social workers who had a strong desire to counsel clients in lieu of other duties and also nurses who were more interested in performing hands-on medical care than in arranging services reportedly left the project sooner than did employees more willing to be flexible.

Although very little research exists on the best way to train case managers, the program experience indicated that initial and ongoing activities are needed. The demonstration emphasized initial training, and in a more limited way, ongoing activities. Because many of the training needs were identified from practice situations, program staff recommended that more time and resources be allotted for training after case managers had gained some job experience. Daily case management practice involves a significant amount of solo effort. Within the demonstration some of the most well-received in-service training sessions included opportunities for group discussions and sharing of common concerns with colleagues and outside consultants.

Given the continued emphasis on using case management to coordinate long-term care, educational institutions also must plan to meet the needs of students entering this practice. Along with a broader gerontological curriculum in general, many professional schools of nursing and social work are now developing specific courses on case management of older persons (Leon, in press). Although much of the training for case management is program-specific, there is a range of knowledge and skills that can be incorporated into professional education. Medical terminology, assessment and care planning skills, medical and mental health studies, and an overview of health care and social service delivery could be incorporated into course work and supervised field training. Interdisciplinary practice should also be introduced into professional education. Learning how to understand clients' health and social service needs and how to mesh their skills with those of other professionals will enable students to function effectively as case managers with long-term care clients.

References

Abrahams, R., & Lovitz, W. (1983). The consolidated model of case management and service provision to the elderly. *Pride Institute Journal of Long-Term Home Health Care, 2,* 29–34.

Amerman, E., Eisenberg, D., & Weissman, R. (1983, November). *Case management and counseling: A service dilemma experience from channeling.* Paper presented at the 36th Annual Meeting of The Gerontological Society of America, San Francisco.

Austin, C., Low, J., Roberts, L., & O'Connor, K. (1985). *Case management: A critical review.* Seattle: University of Washington.

Carcagno, G., Applebaum, R., Christianson, J., Phillips, B., Thornton, C., & Will, J. (1986). *The evaluation of the National Long-Term Care Demonstration: The planning and operational experience of the channeling projects.* Princeton, NJ: Mathematica Policy Research.

Dronska, H. (1983). Focus: The role of case management in long-term home health care. *Pride Institute Journal of Long-Term Home Health Care, 2,* 21–28.

Eisenberg, D. M., Amerman, E., & Weissman, R. (1983, November). *Impaired elders, mental health services and community-based long-term care — The channeling experience.* Paper presented at the 36th Annual Meeting of The Gerontological Society of America, San Francisco.

Iversen, L. H. (1986). *A description and analysis of state pre-admission screening programs.* Excelsior, MN: Interstudy.

Kemper, P., Brown, R., Carcagno, G., Applebaum, R., Christianson, J., Corson, W., Miller-Dunstan, S., Grannemann, T., Harrigan, M., Holden, N., Phillips, B., Schore, J., Thornton, C., Wooldridge, J., & Skidmore, F. (1986). *The evaluation of the National Long-Term Care Demonstration: Final Report.* Princeton, NJ: Mathematica Policy Research.

Leon, J. (in press). *The geriatric case practice curriculum utilization compendium.* Beverly Hills, CA: SAGE Publications.

Schneider, R., Decker, T., Freeman, J., & Syran, C. (1984). *The integration of gerontology into social work educational curricula.* Washington, DC: Council on Social Work Education.

Schneider, R., Hirsch, C., Richards, S., Sterthous, L., Cohen, C., & Wilson, N. (1986). *Beyond assessment: Exploratory study of case management in the channeling environment.* Philadelphia: Temple University.

United States Department of Health and Human Services. (1984). *Studies evaluating Medicaid home- and community-based care waivers.* Bethesda, MD: Health Care Financing Administration.

White, M. (1987). Case management. In *Encyclopedia of aging.* New York: Springer Publishing.

Wilson, N. (1983, November). *Serving impaired elders in the community: The interface of case management with mental health services.* Paper presented at the 36th Annual Meeting of The Gerontological Society of America, San Francisco.

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Conceptual approaches employed in service utilization and multidimensional assessment research which have been used for planning and evaluating services to the aged are reviewed. Also examined are the conceptual properties of three widely-used assessment instruments in order to assess their utility in providing a data base for planning and evaluation. Suggestions are offered for the conceptual refinement of assessment instruments to enhance their usefulness.

Key Words: Assessment, Research, Service, Planning, Evaluation

Comprehensive Services for the Aged: Theoretical and Empirical Perspectives[1]

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Two major emphases have been apparent in research carried out as part of the effort to plan and provide services for the aged in a more effective and efficient manner. The first involves investigations of service use by older Americans and attempts to identify factors that discriminate between service users and non-users and factors that predict variations in the types and amounts of services needed and used. An underlying assumption in these studies is that service planning can be enhanced by knowledge about the characteristics of elderly persons who currently utilize specific services. The utility of this research for the planning of services needs to be tempered by conceptual limitations and by demographic, social, and other factors that alter both service needs and preferences for health and social services among the aged.

The second type of research focuses on the multidimensional assessment of the aged in order to portray their needs more accurately and comprehensively to planning bodies. Multidimensional assessment research is viewed as useful for service plan design on a client-level basis, on an aggregate or community-level basis, and for service evaluation purposes. The major thrust in this area of research is to develop conceptual frameworks from which assessment instruments are designed and which include all dimensions relevant to the functioning and well-being of the aged. The utility of multidimensional assessment research for planning purposes is still limited because the conceptual approaches employed preclude information on the aged's knowledge about, access to, and preference for services as well as other service-related variables.

The first purpose of this paper is to review and compare the conceptual approaches used in these two bodies of research. Second, three multidimensional assessment instruments that are widely used for planning and evaluation purposes are examined. Critical to the review and comparison is the extent to which investigations of service use and multidimensional assessment instruments yield information that enables human service professionals in the field of aging to systematically plan and evaluate services for older persons.

Service utilization research has generally not been based on sound theoretical foundations (Krout, 1983). Recent efforts in health and aging services research, however, have operationalized the need for service and service utilization as a function of three variable categories (Anderson et al., 1975; Wan & Arling, 1983). These are predisposing variables (demographic and socioeconomic), need variables (physical health, mental health, functional status), and enabling variables (economic resources, living environment, social resources, and personal resources such as life perspective and coping skills). Despite this conceptual advance, there is still no agreement among researchers about the most appropriate operational referents for these variable categories.

Further progress could be made in health services and gerontological research by considering the objectives of human service professionals in the field of aging and incorporating them into the conceptual frameworks of service utilization and multidimensional assessment research. The inclusion of these objectives would result in the generation of data that more directly address the extent to which service objectives are attained and assess whether the ser-

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vices have had their intended impact on elderly users. A review of the health and social services literature reveals that planning and practice efforts of health and human service professionals in the field of aging are guided by the following objectives: (1) to provide older individuals and families with effective services that are efficiently delivered; (2) to allow older service consumers as much discretion as possible in the services they use and enhance to the fullest extent possible their participation in the planning and provision of services; (3) to encourage and support family members, friends, neighbors, and volunteers in caring for older persons; and (4) to enhance the coping resources of older service consumers and their informal caregivers (Dunlop, 1980; Luppens, et al., 1985).

Implicit in these professional objectives is a conceptual approach which includes the need for information about the aged's state of well-being or vulnerability, their knowledge about and preferences for services, and their discretion and choice in the use of services. These objectives also imply the need for information regarding the involvement, stresses, and coping resources of the aged's informal caregivers. In addition, these objectives imply the need for information about service objectives, service utilization, and service impact from the perspective of service consumers as well as cost-benefit data from the perspective of service planners and service providers. The use of a more comprehensive model in service use research is likely to provide a more systematic data base for the assessment of service need, for the planning of services, and for the evaluation of services. A more comprehensive model would also facilitate the targeting of services to elderly persons who are in the greatest need of specific types of services.

The importance of adequate assessment and service use data has become more apparent as pressures are exerted on human service organizations in the field of aging to increase their effectiveness and to demonstrate greater efficiency. These pressures are compounded by a greater demand for services from increasing numbers of older persons in the higher age groups and by declining financial resources and wavering public support for such expenditures. It is expected that future cohorts of elderly service consumers and members of their informal support system will be more knowledgeable about programs and services. For these reasons service agencies in the field of aging will need to enhance their ability to document and account for their responsiveness to service needs, for the effectiveness of their services, and for their efficient use of resources. Therefore, the assessment, planning, organization, and evaluation of services in the field of aging must be markedly improved in the future.

Service Utilization Research

In general, considerable variation and inconsistency exist in the approaches employed in service utilization research. In fact, only a limited number of studies that assess the characteristics and service use of elderly persons are based on sound theoretical foundations (Krout, 1983; McKinlay, 1972). Several investigations have found that demographic variables (e.g., sex, race, marital status, and living arrangements) and socioeconomic variables (e.g., education, income, and occupational background) only minimally differentiate between members and non-members at senior centers and account for only a small fraction of variance in the use of services by community aged (Krout, 1983; Wan & Arling, 1983). Several studies, however, consistently indicate that women, minorities, persons who are older, persons who live alone, and persons with lower incomes and less education are more likely to utilize services at senior centers (Cottrell, 1975; Harel et al., 1984; Harris, 1977).

Service utilization research also indicates that, in addition to socio-demographic and socioeconomic status, information about benefits and services, source of information, and access to benefits and services play important roles in the prediction of service utilization (Krout, 1983; Silverstein, 1984). Not all older people are likely to have information about resources and services that might directly enhance the quality of their lives (Branch, 1978). A literature review by Silverstein (1984) reveals that lack of knowledge about resources and services is likely to reduce both the search for services and the search for information about services. Findings from empirical investigations reveal that some older persons do not know what benefits are available, to which they were entitled; others with medical problems do not know that there are agencies to which they could turn; and only a small fraction of widows are familiar with the procedures used by local service agencies (Katz et. al., 1975; Kent & Matson, 1972; Lopata, 1975).

Silverstein's review (1984) further indicates that even when people have a general knowledge about available services, they may not be able to relate them to their own needs or to the needs of others around them. Older persons may be unable to match their own needs with available services; they may not be inclined to use services, or they may not know how to negotiate services from service agencies (Bild and Havighurst, 1976; Cantor, 1975; Comptroller General, 1977).

Powers and Bultena (1974) assert that distinctions should be made in service utilization research between awareness of services, expressed intent to use services, and actual utilization of services. In a review of research on service use by the aged, Krout (1983) concludes that the elderly's perception of services, their access to services, and their intent to use services are far from uniform and/or consistent. It is apparent from the reviewed research that service use is generally higher among women over the age of 75, widows living alone, persons with poor health, and persons with limited informal social resources (George, 1981; Harel et al., 1983; Krout, 1983). In addition to these objective indicators, knowledge about and access to services and attitudinal predis-

position toward their use are also important determinants of service use among the elderly.

Along with other factors already reviewed, the interface between formal organizations and informal sources of support is also important in determining service utilization by the aged. The informal system is more likely to provide emotional support and assistance with personal care and household management. In contrast, the formal system of public and voluntary agencies provides entitlements to housing, education, safety, transportation, and health and social services (Comptroller General of the United States, 1977).

Data from large-scale studies document that most older Americans have a viable and functioning informal support system but that older persons and their informal caregivers turn to formal organizations for assistance when the nature of their problems becomes too difficult for them to handle alone (Cantor, 1978; Comptroller General of the United States, 1977; Shanas, 1979). One major survey of impaired elderly who lived with and were cared for by family members found that a spouse or adult child caregiver helped with personal care tasks and spent an average of approximately 3 hours daily helping with the performance of these tasks (Noelker & Poulshock, 1982). For the older population in general, 50% of all in-home services are provided by the family, and the rate climbs to 80% for those who are severely impaired (Comptroller General of the United States, 1977). In a comparison study of home care and nursing home care for older persons in Minnesota, Anderson, et al. (1980) reported that 78% of the home care sample received help from family and friends and that the informal system rendered significantly more care than did the formal organizations in that community. In addition, findings from that study showed that about 20% of the aged in the home care sample who had more than one helper were more functionally incapacitated than the aged in the nursing home sample.

In summary, a review of the service use literature reveals considerable variation in the conceptual frameworks employed in service utilization research. Due to these variations and the resulting inconsistencies in findings, service utilization research does not provide a sufficiently conclusive data base for the planning and organization of services. In order to increase the utility of service use research for service planning, future studies must be guided by conceptual approaches that incorporate the multidimensional functional status and well-being of the aged as well as their knowledge about, access to, preference for, and utilization of services from both formal and informal sources. Service utilization research should also conceptualize and operationalize the involvement, resources, and burdens of informal caregivers.

This conceptual orientation is used to review three of the more widely used instruments for the assessment of older persons: (1) the Older Americans Resources and Services (OARS); (2) the Philadelphia Geriatric Center's Multilevel Assessment Instrument (PGC-MAI); and (3) the Mathematica Policy Research Center's Clinical Assessment and Baseline Research Instrument (MPR). These three instruments are purported to be conceptually grounded and to have a dual purpose of both service design and research evaluation. The conceptual properties of the instruments differ, however, and these differences affect their utility for the design and evaluation of services for older individuals and aged populations.

Multidimensional Assessment of Well-Being

A number of efforts have been made in recent years to develop conceptual frameworks for assessing the well-being of the aged along multidimensional lines. These efforts have been stimulated by the desire of professionals in the fields of health and social services to better represent the needs of impaired older persons to planning and funding organizations. On the national level the Administration on Aging and the Federal Council on Aging, reflecting on the legislative enactments of the Older Americans Act, stimulated research on the multidimensional assessment of the elderly's well-being. As part of these efforts, special attention was focused on assessing the characteristics and needs of the "vulnerable," "at-risk," and "frail" elderly in order to better assess their needs and to plan and target services for them (Benedict, 1979; Federal Council on the Aging, 1978).

Duke University's Center for the Study of Aging developed the Older Americans Resources and Services (OARS) instrument, which was designed to provide a multidimensional functional assessment of the aged's well-being (Blazer, 1978). The five well-being domains it includes are three health dimensions (physical health, activities of daily living, and mental health) and two resource areas (social resources and economic resources). Summary rating scales for each of the five domains are completed by the assessor, based on the respondent's answers to selected items. "Overall well-being" is calculated from the elder's status on five summary scales. In addition, the OARS instrument elicits extensive information about factors affecting well-being. These factors include the older person's reported use of and need for 20 types of services grouped under the categories of home help, medical care, financial aid, assessment, referral, social/recreational, and transportation. This instrument was used in the assessment and description of the Durham county aged in the GAO report on the well-being of the Cleveland aged (Comptroller General of the United States, 1977) and, subsequently, in other cross-sectional studies of the aged (Comptroller General of the United States, 1981; Harel, et al., 1984).

The Philadelphia Geriatric Center's Multilevel Assessment Instrument (PGC-MAI) was constructed on a model of the aged's well-being that includes four major sections (i.e., behavorial competence, psychological well-being, perceived quality of life, objective environment), each with multiple domains (Lawton et al., 1982; Moss et al., 1978). The seven domains of the PGC-MAI are physical health, cogni-

tion, activities of daily living, time use (effectance), social interaction, psychological well-being, and the perceived environment.

Although the PGC-MAI's originators acknowledge the immense contribution made by the OARS designers to the elderly's comprehensive assessment, they cite several limitations in the OARS (Lawton et al., 1982). First, it neglects the important domain of the aged's environment. Second, it does not adequately differentiate between various types of activities (e.g., leisure, solitary, informal social) that reflect different levels of behavioral competence, nor does it sufficiently distinguish between cognitive ability and psychological well-being. Third, psychometric scaling techniques were not used extensively to produce a wide variety of item indices from OARS. Fourth, since psychometric scaling techniques were not extensively used, different OARS versions of varying length, in which the properties of each are clearly delineated, are not available. This last point is particularly critical for the comprehensive assessment of older persons because their stamina or endurance is often limited, and a shorter version of an assessment instrument is often needed. The PGC-MAI attempted to overcome these shortcomings of the OARS.

The most recent assessment instrument is the Clinical Assessment and Research Baseline Instrument — Community Version (MPR) developed by Mathematica Policy Research for the National Long-Term Care Demonstration Project (Phillips, et al., 1981). his instrument appears to combine domains from both OARS and the PGC-MAI, although its format and the content of sections differ. Following the background or demographic sections at the beginning of the schedule, its seven domains are physical health, medical care use, functional competence (activities of daily living and instrumental activities of daily living), services and support, mental functioning, financial resources, and the physical environment.

The instrument is formated so that quantitative measures for each domain appear on one side of a page with the opposite side available for the practitioner to record personal observations or comments pertinent to the items. This format implies that all the information required for designing client-specific service plans is not elicited by the closed-ended items. A major purpose of the instrument is to aid case managers in determining the eligibility of frail aged for community-based services and the funding of such services.

The review of these instruments reveals that all three include standard measures of socio-demographic and socioeconomic status. A notable difference among the three instruments is in their assessment of functional abilities (i.e., personal care tasks and activities of daily living). The PGC-MAI and MPR schedules elicit information about both competence and performance of daily activities, whereas the OARS focuses more exclusively on reported competence to perform activities. Both OARS and the MPR schedule elicit information about the perceived need for help with a wide range of services or tasks; the PGC-MAI does not. However, need for assistance may be inferred from the PGC-MAI open-ended items that ask the reasons why an activity is not performed or help is given. The MPR instrument includes more items pertaining to service use and informal help than does the PGC-MAI, and it also includes items about the physical environment which are not included in OARS.

Noteworthy omissions from all three schedules are the aged person's knowledge about community resources and services, access to services, and preferences for sources of assistance. These omissions are surprising since evidence indicates that service utilization is contingent upon knowledge of benefits and services, access to services, and preferences for sources of assistance. The oversight may contribute to the absence of consistent relationships between expressed need and service use.

Regarding economic resources, the OARS and MPR instruments contain a more extensive list of objective and subjective measures than does the PGC-MAI. With respect to social resources, the schedules vary in their coverage of sources of help; the MPR schedule solicits the most specific information about the helper's identity in relation to certain tasks. None of the schedules, however, seeks information about the older person's preferences for sources of help and about problems or stresses experienced by informal helpers that would seem essential to gauging the amount of strain on the informal support system. All three instruments are limited in their assessment of the aged's social involvement, social activity, and social interaction patterns and in their assessment of the perceived adequacy of the social resources.

The other areas of notable divergence are mental functioning and psychological well-being. The PGC-MAI most clearly differentiates between mental or cognitive functioning and psychological well-being and also operationalizes various types of personal and social activities. All three schedules include some version of Pfeiffer's Short Portable Mental Status Questionnaire (1975) to assess cognitive impairment but otherwise employ quite different measures of mental functioning and well-being. Only the MPR attempts to assess perceived choice and problem-solving skills, which are salient aspects of mental health in later life (Schulz, 1980). None of the instruments assesses personal resource variables such as coping skills, motivation, or other psychological variables.

Discussion

Lawton and his colleagues (1982) assert that the multidimensional assessment of older persons must be based on a conceptual scheme and lead to the refinement of a functional taxonomy and to the generation of hypotheses on theoretical and applied issues. Much of the service literature to date, however, has lacked a theoretically sound conceptual scheme (Krout, 1983). For the most part, research has

equated the need for services with health and functional status impairments or, more recently, with a configuration of health and functional status impairments and limitations in social and economic resources. This may account, in part, for the fact that instances in which the planning and organization of services are based on the systematic assessment of older persons are limited. The other major reasons are that assessment instruments have not adequately conceptualized and measured salient service dimensions and have not yet demonstrated their utility for planning and evaluation purposes.

All three of the reviewed instruments adequately conceptualized and operationalized the socio-demographic and socioeconomic status variables which are termed predisposing variables in the health services research literature. The need variables of physical health, mental health, and functional status are also operationalized in these instruments, although there are notable differences in their assessment of mental status, cognitive impairment, and psychopathology. The operationalization of economic and social resources includes both objective and subjective indicators in all three instruments, but enabling variables such as knowledge about and access to services are omitted from the OARS and the MPR instruments and are only minimally included in the PGC-MAI.

In summary, the conceptual frameworks of multidimensional assessment research instruments that have been used to plan services for the elderly tend to be limited in scope. The need (health) and enabling variable categories included in this type of research are still awaiting conceptual validation, reliability testing, and psychometric scaling. Service utilization studies, although more diverse in scope and methodology, have more directly examined, in addition to service use, the elderly's knowledge about, access to, and preferences for services as well as the relationship between the aged's informal support system and their formal service use. These factors have been consistently identified as important determinants of actual service use. In contrast, the three comprehensive assessment instruments reviewed here do not include these domains in their conceptualization; instead, they tend to focus on elements that have been used to indicate "objective needs" for services. However, the neglect of "subjective needs," such as the elderly's preferences for various types and sources of assistance, by the three assessment instruments limits their utility for service planning on the individual and aggregate levels. Moreover, the information obtained from assessment instruments and service use research is further limited because they do not permit the evaluation of the extent to which the objectives pursued by human service professionals are attained. These objectives are to allow the aged maximal choice concerning the services they use and to encourage and support their informal support system. The assessment instruments neglect, for the most part, to obtain information about service preferences of the aged and about the problems, resources, and burdens of the informal caregivers who provide the bulk of care to impaired elderly. Therefore, the evaluation of the attainment of these objectives pursued by professionals in the field of aging is thwarted.

What is clearly required in future research on service utilization and in the refinement of multidimensional assessment instruments is a blending of their conceptual frameworks. The resulting framework would thus include sufficient attention to predisposing, need, and enabling variables as well as to variables related to service knowledge, access to services, and preference for services. Future research should also incorporate and adequately conceptualize the involvement, stresses, and coping experiences of informal caregivers. Furthermore, future research on service use must conceptualize and operationalize more adequately the initiation of service, the ongoing delivery of service, and service outcomes. In essence, we concur with Lawton and his colleagues (1982) that research studies designed to improve services for the elderly need to be more conceptually comprehensive and to include the range of salient dimensions related both to elderly persons and to services for the elderly. Concurrent with conceptual efforts, refinement and validation of the constructs and tests of their reliability are needed. Psychometric scaling is also required in order to reduce the overlap and redundancy in the items used in the instruments. These conceptual and methodological efforts will require considerable energy and resources, but they are needed to advance our understanding of the vulnerability and service needs of the aged and to evaluate the extent to which the professed objectives of human service professionals are effectively and efficiently attained.

References

Anderson, R., Kravits, J., & Anderson, O. W. (1975). *Equity in health services: Empirical analysis in social policy*. Cambridge, MA: Ballinger.

Anderson, N., Patten, S., & Greenberg, J. (1980). *A comparison of home care and nursing home care for older persons in Minnesota* (Vol. 3). Minneapolis: University of Minnesota.

Benedict, R. (1979). *Policy and program developments in long-term care*. Washington, DC: U.S. Administration on Aging.

Bild, B. R., & Havighurst, R. J. (1976). Senior citizens in great cities: The case of Chicago. *The Gerontologist, 16*, 4–88.

Blazer, D. (1978). The Durham survey: Description and application. In *Multidimensional functional assessment: The OARS methodology: A manual* (pp. 75–88). Durham, NC: Duke University Medical Center.

Branch, L. G. (1978). *Boston elders. Program report*. Boston: University of Massachusetts Center for Survey Research.

Cantor, M. H. (1975). Life space and the social support system of the inner city elderly of New York City. *The Gerontologist, 15*, 23–27.

Cantor, M. H. (1978). *The informal support system and its relevance in the lives of the elderly*. Unpublished manuscript, Brookdale Center on Aging, New York.

Comptroller General of the United States (1977). *The well-being of older people in Cleveland, Ohio*. Washington, DC: General Accounting Office.

Comptroller General of the United States (1981). *Profiles of older people*. Washington, DC: General Accounting Office.

Cottrell, F. (1975). Transportation of the rural aged. In R. Atchley (Ed.), *Rural environment and aging* (pp. 187–215). Washington, DC: Gerontological Society.

Dunlop, B. D. (1980). Expanded home-based care for the impaired elderly: Solution or pipe dream? *American Journal of Public Health, 70*, 514–519.

Federal Council on the Aging (1978). *Public policy and the frail elderly*. Washington, DC: U.S. Government Printing Office.

George, L. K. (1981). *Predicting service utilization among the elderly*. Durham, NC: Duke University Medical Center.

Harel, Z., Luick, M., & Wyatt, J. (1983). *Older American service consumers in the Western Reserve*. Cleveland: Cleveland State University.

Harel, Z., Wyatt, J., & Luick, M. (1980). Older Americans Act service consumers: A contrast between the homebound and users of nutrition programs. *Journal of Gerontological Social Work, 6,* 19–34.
Harris, L. (1977). *The myth and reality of aging.* Washington, DC: The National Council on the Aging.
Katz, D., Gutch, B. A., Kahn, R. L., & Barton, L. (1975). *Bureaucratic encounters: A pilot study in the evaluation of government services.* Ann Arbor: University of Michigan.
Kent, D., & Matson, M. (1972). The impact of health on the aged family. *Family Coordinator, 21,* 29–36.
Krout, J. (1983). Knowledge and use of services by the elderly: A critical review of the literature. *International Journal of Aging and Human Development, 17,* 153–167.
Lawton, M. P., Moss, M., Fulcomer, M., & Kleban, M. H. (1982). A research and service oriented multilevel assessment instrument. *Journal of Gerontology, 37,* 91–99.
Lopata, H. (1975). Support systems of elderly urbanites: Chicago in the 1970s. *The Gerontologist, 15,* 35–41.
Luppens, J., Harel, Z., & Wyatt, J. (1985). *Home-based long-term care services.* Final Report. Cleveland: The Chronic Illness Center of the Cuyahoga County Hospitals.
McKinlay, J. (1972). Some approaches and problems in the study of the use of services: An overview. *Journal of Health and Social Behavior, 13,* 115–152.
Moss, J., Fulcomer, J., & Kleban, M. (1978). *Conceptual and statistical aspects of the PGC Multilevel Assessment Instrument.* Paper presented at the 31st Annual Scientific Meeting of the Gerontological Society, Dallas.
Noelker, L., & Poulshock, W. (1982). *The effects on families of caring for impaired elderly in residence.* Cleveland: The Benjamin Rose Institute.
Pfeiffer, E. (1975). A short portable mental status questionnaire for the assessment of organic brain deficit in elderly patients. *Journal of the American Geriatrics Society, 23,* 433–441.
Phillips, B. R., Baxter, R. J., & Stephens, S. A. (1981). *Approach to the client assessment instrument for the National Long-Term Care Demonstration evaluation.* Princeton, NJ: Mathematica Policy Research.
Powers, E. A., & Bultena, G. L. (1976). Correspondence between anticipated and actual uses of public services by the aged. *Social Service Review, 48,* 245–254.
Schulz, R. (1980). Aging and control. In J. Garber & M. Seligman (Eds.), *Human helplessness* (pp. 261–277). New York: Academic Press.
Shanas, E. (1979). Social myths as hypothesis: The case of the family relations of old people. *The Gerontologist, 19,* 3–9.
Silverstein, N. (1984). Informing the elderly about public services: The relationship between sources of knowledge and service utilization. *The Gerontologist, 24,* 37–40.
Wan, T. T. H., & Arling, G. (1983). Differential use of health services among disabled elderly. *Research on Aging, 5,* 411–431.

ERRATUM

Inadvertently omitted from the article "Nutrition Site Service Users: Does Racial Background Make A Difference" by Z. Harel, 1985, 25, 286–291, was reference to N. Silverstein's article "Informing the Elderly about Public Services: The Relationship Between Access to Information and Service Utilization," *The Gerontologist, 1984, 24,* 37–40.

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Examined were rural-urban differences in the number of activities and services offered by senior centers. A sample of 755 senior centers located in 31 states revealed that the total number of activities and services are greater for metropolitan centers. Community type, however, was not a predictor of activities and services whereas size of center budget and staff were.

Key Words: Community size, Service delivery, Formal supports

Rural-Urban Differences in Senior Center Activities and Services[1]

John A. Krout, PhD[2]

Gerontological research has consistently shown that rural areas have fewer services available to their elderly residents than urban areas (Ecosometrics, 1981; Kim, 1981; Taietz, 1973). In a nationwide study of 137 agencies on aging, Nelson (1980), for example, found that rural agencies provided a more limited range of services to the elderly than did urban agencies. It has also been suggested, however, that while still significant, the service gap between rural and urban places has been narrowed in the past decade (Taietz & Milton, 1979). Nonetheless, precious little comparative empirical research has been carried out on rural versus urban differences in service availability for the elderly.

Examined is one aspect of rural/urban services by focusing upon differences in community type among senior centers. By the late 1970s, it was estimated that over 5,000 senior centers were operating in this country (U.S. Senate, 1979), and Schulder (1985) noted that about 10,000 senior centers are now in place across the nation. In turn, increases in funding and the identification of senior centers as "focal points" for the delivery of supportive services have increased the visibility and importance of senior centers for the elderly living in the community (Estes, 1980; Leanse, 1977). Although researchers have given considerable attention to the use of senior centers as well as to characteristics of center users (Hanssen et al., 1978; Krout, 1983a; Storey, 1962; Tuckmann, 1967), relatively little attention has been given to the number and variety of activities and services provided by them and even less to the community variability in senior center offerings. Two major research studies are exceptions.

The first is a 3-year project conducted by the National Council on the Aging (NCOA, 1975) in the early 1970s. This national study provided a wealth of information on the organizational and programmatic aspects of senior centers and clubs. Reported in the NCOA study was that urban centers offered a larger number of programs and services than rural areas. The second study (Krout, 1983b), undertaken to both update and expand the NCOA project, was conducted in 1982–83 and data were collected from 755 senior centers in 31 states. In this paper, the latter data are analyzed regarding the role of variation in community type for senior center activities and services, and for the importance of community type as a predictor of the number of activities and services offered by centers.

Methodology

In most studies on rural versus urban differences of the elderly, places are categorized based on their location in or outside metropolitan areas or on their population size. In the present study, a four-fold typology classifies centers according to their community size and their metropolitan status: metropolitan central city (50,000 and up), metropolitan noncentral city (less than 50,000), nonmetropolitan urban (5,000 or greater), nonmetropolitan rural (less than 5,000). This operationalization of center by community is based on the premise that the location of a community vis a vis a metropolitan center and the community's population size affect the extent of its organizational network and resources — in this case senior center service offerings. Thus, community type is conceptualized as a continuum ranging from rural places in nonmetropolitan counties to the central cities of metropolitan areas.

The sample of senior centers used in this research was drawn from a listing covering 28 states compiled by the National Council on the Aging. The names of senior centers in 3 states (New York, Illinois, and California) not available in this listing were added to build a master file of approximately 4,000 senior centers in 31 states. Each senior center was classified for community type using census data as discussed earlier. A stratified random sampling procedure was

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used to identify an equal number of senior centers from each of the cells created by this classification scheme.

Three waves of a 15-page survey instrument were mailed to these centers between late 1982 and early 1983. Fifty-two of the questionnaires were returned as not deliverable. Eleven percent of the 853 returned surveys were omitted from the study because of large amounts of missing data or because the "center" did not offer at least one activity or service at least once a week. Thus the data presented here are based on responses of 755 senior centers or 55% of the original sample.

Many researchers do not distinguish between activities and services. For the purposes of this paper, activities refer to senior center programs that are engaged in largely for the personal enrichment or enjoyment of the individual. Services, on the other hand, refer to programs designed to enable the elderly to utilize the center or to center programs intended to meet needs in areas such as health, income, transportation, and so forth. Activities are not means-tested although some of them (such as trips) might include costs to the participant. Services can be, but are not necessarily, income related. Although programs classified as activities or services in some cases may have common characteristics, this distinction is used to allow a more refined understanding of senior center programming. The resources needed to provide activities or services would appear to differ as may the characteristics of the elderly who utilize them. These differences may be related to the availability of activities and services in rural versus urban areas. As shown in Chart 1, a total of 17 kinds of activities and 38 services were identified by the respondents.

Chart 1.
Listing of Activities or Services Included in Each Category

KIND OF ACTIVITY	KIND OF SERVICE
Educational and Cultural	Access to Center
performing arts	information/referral
arts and crafts	outreach
creative writing	transportation
lectures	
library	Health and Nutrition
newsletter	screening & maintenance
discussion groups	health education
trips	nutrition education
	group meals
Leadership Opportunities	home delivered meals
advocacy training	
participant government	In-home
program leadership	escort
	friendly visiting
Recreation	homemaker
active	home health
sedentary	repair/winterization
parties	telephone reassurance
trips	
	Income Supplement
Volunteer Organization	crafts shop
in center	discount program
in community	food coop
	small appliance repair
	thrift shop
	job training
	job placement
	Information & Assistance
	consumer information
	crime prevention
	financial/taxes
	housing information
	legal aid
	public assistance
	programs (SSI, etc.)
	social security/medicare
	Personal
	crisis intervention
	group counseling
	individual counseling
	peer counseling
	Special Services
	adult daycare
	crisis & emergency
	programs (handicapped)
	protective services
	nursing home programs

Findings

For the 17 activities, the mean offered by senior centers is 11.1 and for the 38 services the mean is 17.6. Since an examination of the relationship between each individual program and community type would be cumbersome, the programs are classified under a smaller number of activity and service categories, as shown in Chart 1. As shown in Table 1, centers in the four community designations differ on the number of offerings for each activity type. A consistent positive relationship is found between the mean number of activities and community type. For three of the four activity types (education, recreation, and volunteer), the nonmetropolitan rural centers have the lowest means. The same significant relationship is found between community type and the total mean number of activities. A significant relationship based on community type is also found for the fourth category (leadership opportunities), but here the smallest mean is found for centers located in nonmetropolitan urban places.

As shown in Table 2, there are statistically significant differences for community type for all but two services categories: in-home and health. Although the differences are not statistically significant, the mean number of in-home services actually increases as one moves down the urbanization typology. As one might expect given previous research findings and data already reported here, a positive relationship exists between the mean number of services for the other categories and community type. That is, centers located in metropolitan areas have a higher mean number of services. The same relationship is found between the total mean number of services and type of community. And while centers in metropolitan areas clearly offer more services than those in nonmetropolitan areas (especially rural), it is metropolitan suburban centers that actually offer the highest total number of services.

Table 1. Analysis of Variance Showing the Relationship Between Mean Summed Senior Center Activity Category Scores Based on Community Type

		Activity categories				
	n	Total mean	Educational & cultural	Leadership opportunities	Recreation	Volunteer
Total sample	(755)	11.1	5.00	1.25	3.35	1.57
Community type						
Metro central city	(171)	12.50	5.74	1.50	3.65	1.61
Metro non-central city	(177)	11.51	5.11	1.29	3.45	1.66
Nonmetro urban	(208)	10.96	4.87	1.09	3.41	1.60
Nonmetro rural	(199)	9.85	4.31	1.16	2.97	1.41
F Value		10.85	12.02	3.61	12.82	4.28
Significance		.000	.000	.013	.000	.005

Table 2. Analysis of Variance Showing the Relationship Between Mean Summed Senior Center Service Category Scores and Community Type

		Service categories							
	n	Total mean	Access to center	Health & nutrition	In-home	Income supplement	Information & assistance	Personal counseling	Special services
Total sample	(755)	17.6	2.5	3.8	2.8	1.5	4.7	1.3	1.1
Community type									
Metro central city	(171)	18.50	2.60	3.78	2.32	1.70	5.11	1.71	1.27
Metro non-central city	(177)	18.72	2.61	3.88	2.55	1.68	5.21	1.50	1.27
Nonmetro urban	(208)	17.69	2.51	3.85	2.65	1.52	4.72	1.30	~1.14
Nonmetro rural	(199)	15.56	2.33	3.64	2.71	1.13	3.96	.88	.90
F Value		10.85	3.66	.908	1.68	3.86	7.84	9.66	2.45
Significance		.000	.012	.437	.169	.009	.000	.000	.042

Multiple regression analysis is used to determine the relative importance of community type as a predictor of the total number of activities and services offered by senior centers. Three sets of independent variables are included in this multivariate analysis: socio-demographic characteristics of center users, organizational characteristics of the center, and characteristics of the community in which the center is located. User characteristics include sex, age, income, and race while community characteristics include percentage of the population over age 60, community type, and geographic region. Geographic region is entered into the analyses as a dummy variable. Organizational characteristics are total budget, number of paid and volunteer staff, average daily attendance, size of center (square feet), and whether a center is a multi-site organization. A multi-site organization is a senior center that provides activities or services at more than one site. The total budget figure is used in lieu of per capita data because exact budget figures were not collected from centers, only a budget range.

Table 3 shows the bivariate relationship between the community type variable and the independent variables used in the multiple regression analysis. In terms of user characteristics, statistically significant differences are found for race and income but not age and sex. The percentage of users who are nonwhite is positively related to community size while the percentage of users with incomes of less than $5,000 is considerably lower for suburban centers. Community type differences are found for every center characteristic except average daily attendance. Number of volunteer staff, size of center, budget, and number of users all increase as community size increases. The number of paid staff is considerably smaller for rural nonmetropolitan centers but not for nonmetropolitan urban places and metropolitan central city and suburban centers are most and least likely, respectively, to have more than one site. Neither of the community characteristics are significantly related to community type.

The findings of the multiple regression analysis shown in Table 4 reveal that community type is not an important predictor of the total number of senior center activities or services. The beta coefficient for community type for activities is only .07 and for services it is .02. Several user and center characteristics do have small but substantively important betas. Centers with higher percentages of users who are aged 75 and over report a greater number of activities and services and those centers with smaller percentages of users with incomes under $5,000 report more activities. Measures of center budget and staffing appear to be the strongest predictors of activities and services. The larger the budgets and number of paid and volunteer staff, the greater the number of activities and services. Taken together, the independent variables explain 25 and 21% of the variation in total number of activities and services respectively.

Table 3. Bi-Variate Relationship Between Community Type and Independent Variables (n = 755)

Independent variables	Community type: Metro central city (n = 171)	Metro non-central city (n = 177)	Nonmetro urban (n = 208)	Nonmetro rural (n = 199)	F value	Significance
User characteristics						
Percent female	78.8	77.5	76.2	77.1	.99	.40
Percent non-white	38.1	22.6	21.8	17.9	13.55	.00
Percent income less than $5000	34.2	24.9	36.0	34.3	4.56	.00
Percent aged 75 and over	27.5	27.8	28.5	28.1	2.10	.14
Center characteristics						
Mean number of volunteer staff	7.9	7.4	7.0	3.2	14.83	.00
Mean number of paid staff	33.8	27.6	32.1	14.1	7.23	.00
Average daily attendance	115	135	124	75	1.03	.38
Mean square feet in center	7380	4625	4832	3104	9.58	.00
Percent multi-site organization	63.3	49.7	55.4	57.6	13.38	.00
Mean budget score	4.7	4.2	4.1	2.6	28.80	.00
Community characteristics geographic region[a]						
Northeast	.20	.24	.24	.23	.27	.84
North Central	.14	.15	.20	.22	1.78	.15
South	.37	.36	.33	.36	.32	.81
West	.28	.25	.24	.20	1.12	.34
Population aged 60 & over[b]	3.08	2.93	2.97	3.08	1.13	.34

[a]Mean scores calculated for dummy variables.
[b]Actual percentages were not collected. These are mean scores for a scale ranging from 1 to 4.

Table 4. Multiple Regression Analysis Showing the Relationship Between Number of Senior Center Activities and Services and Independent Variables[a] (n = 755)

Independent variables	Beta coefficients: Activities	Services
User characteristics		
percent female	−.02	−.06
percent non-white	.07*	−.07*
percent income less than $5000	−.16***	−.01
percent aged 75 and over	.18***	.12***
Center characteristics		
budget	.17***	.25***
number of volunteer staff	.16***	.10***
number of paid staff	.07***	.14***
average daily attendance	.03	−.02
square feet in center	.04	[b]
multi-site organization	−.11***	−.05*
Community characteristics		
geographic region		
Northeast	[b]	.05
North Central	−.01	[b]
South	−.04	−.03
West	−.01	[b]
community type	.07*	.02
percent population aged 60 & over	−.01	[b]
R	.50	.46
R^2	.25	.21

[a]SPSS Stepwise multiple regression procedure carried out using pairwise substitution for missing data.
[b]Variable not entered into analysis due to low F value.
*Significant at .05 level.
**Significant at .01 level.
***Significant at .001 level.

Discussion

The data analyzed here for senior centers support the argument that smaller less urbanized communities make fewer services available to the elderly than centers in larger and presumably more densely populated areas. This is true for the total number of activities and services and for the number of offerings in 9 of 11 activity and service categories. Significant community type differences are not found for two service categories: health/nutrition and in-home. In the case of the former this may be because of federal funding for group meal programs. The in-home finding is particularly interesting, however. Although the differences are not statistically significant, the number of in-home services increases as the community type becomes more rural. It may be that rural senior centers provide more in-home services because the lack of public transportation and greater dispersal of elderly populations increase the service accessibility problem and require more efforts to overcome isolation and "bring the services to the people." It may also be that the rural elderly find participation in the service network more acceptable if the services are delivered in the home environment and not in a more formal organizational setting. Yet such efforts would seem to be very costly, especially given the lower budgets of rural senior centers.

Cost may also be a factor in accounting for community type variations in the availability of activities and services. Traditional wisdom would suggest that the low population densities of rural areas reduce economies of scale and result in higher per unit costs. Thus, smaller numbers of activities and services would result. The present study did not collect data on service costs and little research is available on rural/urban differences in this topic. A recent review of six unpublished analyses of rural/urban cost differences found inconsistent and contradictory findings and concluded that it was not possible to determine the nature or degree of rural/urban service delivery cost differences (Ecosometrics, 1981). Higher unit

costs in rural areas would compound other service delivery problems and could be used as a rationale for providing fewer and less comprehensive programs.

It is also interesting to note that the total mean for services is highest for centers located in metropolitan suburban areas. Suburban elderly populations, as nonelderly populations, are generally of higher socio-economic status than the central city or nonmetropolitan elderly and thus one might expect them to have less need for services and be less likely, on the whole, to be eligible for means-tested programs. The metropolitan noncentral city elderly in this sample are least likely to report low incomes. On the other hand, suburban areas, partly because of the higher socio-economic status of their populations, generally have more comprehensive and better funded community services.

The multiple regression analysis, however, revealed that community type is not a significant predictor of activities or services when the characteristics of center users and measures of center resources are included. The data do indicate that the number and presumably diversity of activities and services offered by senior centers are greater for those places with larger budgets and staffs. Thus, as one would expect, senior centers with more resources offer more activities and services. Several other center characteristics (size and average daily attendance) are not statistically significant when included in this multivariate analysis. It is the human and financial resources of a center, not its physical size or number of users that is related to the quantity of activities and services. In addition, those centers with larger percentages of users with several socio-demographic characteristics often associated with greater levels of need or frailty offer more activities and services. So, not only are organizational characteristics related to senior center offerings, some user characteristics are as well.

It would appear that it is the smaller budgets and staffs of rural senior centers that account for the rural disadvantage. Data reported here have shown that nonmetropolitan rural and urban as opposed to metropolitan senior centers do have smaller budgets and staffs and are less likely to be part of multi-site organizations. It is these characteristics and not a rural location per se that are associated with service availability. Presumably, centers in more populated areas with smaller budgets and staff also have smaller service offerings.

The critical question then is why rural centers have smaller budgets and staff. Is it because of less need, lower demand, scarce financial or human resources, or inequities in rural versus urban funding? The existing literature does not provide a definitive answer to this question. On the one hand, it could be argued that rural centers have smaller budgets and staff and hence fewer services because demand or need for services is lower. Low client loads are in turn used as a justification for smaller budgets and staff. On the other hand, it could be argued that rural centers have fewer services and hence users because they have smaller budgets and staff, not because demand or need is lower.

Many authors argue that objective need among the rural elderly is higher (Kim, 1981; Youmans, 1967) although at the same time it has been noted that the rural elderly are at least as satisfied with their living conditions as their urban counterparts (Lee & Lassey, 1980) and may be less likely to express their needs as demand for services (Krout & Larson, 1980). Others have argued forcefully that rural communities do not have the same level of human, physical, and organizational resources as urban areas and are further disadvantaged by the urban bias in program/policy formulation and funding (Kim, 1981; Nelson, 1980). Indeed, a major review of rural urban differences in services and program funding revealed that rural areas receive fewer federal dollars in both absolute numbers and in proportion to their share of the nation's older population (Ecosometrics, 1981). Kim (1981) concluded that federal governmental programs systematically discriminate against the rural elderly. In terms of number, scope, and funding levels of programs, urban areas consistently receive a disproportionately larger share of federal resources. Kim (1981) further argued that such inequities stretch across all areas; income maintenance, transportation, housing, physical and mental health. In addition, rural areas are ecologically different than more urbanized places with less dense and smaller concentrations of population. These ecological factors in and of themselves have an impact on service structure and delivery and cannot simply be ignored.

For example, lower population densities make the cost of public transportation virtually prohibitive in many rural areas and force the elderly to rely on themselves or others for private transportation (Cottrell, 1975). Previous research (Ecosometrics, 1981; White House Conference on Aging, 1971) has documented that the rural aged see lack of transportation as one of, if not the biggest problem they face. Thus, the greater need for services among the rural elderly may be offset by the greater inaccessibility of services thus reducing demand.

These findings suggest several observations relevant to rural/urban differences on the extensiveness of services for the elderly. First, the data show that variations not only exist between two traditional indicators of residence, nonmetropolitan and metropolitan, but also within these categories. This suggests that the use of dichotomies provides an incomplete and possibly misleading picture of rural/urban diversity. Second, despite the observed community type differences in center activities and services, community type is not a predictor of activities or services in a multi-variate analysis.

Third, the lack of relationship between community type and center services and the observed impact of center resources suggest that the number of services would be greater if rural centers had larger budgets and staffs and more organizational linkages. This could be seen as support for the position that the lack of organizational resources in rural areas ac-

counts for the smaller number of services and lower rates of service utilization attributed to the rural elderly. It certainly is not clear from the data, however, if and how increased budgets and staff would affect the number of rural senior center services or their utilization. That is, increased budgets and staff might be used to improve or extend existing services and not necessarily to increase the total number of services.

It is also clear from the data that the variables entered into the regression equation do not account for a particularly overwhelming proportion of the variance in the quantity of senior center activities and services. A number of independent factors have been identified that would appear to act as intervening variables between community type and senior center activities and services. There is a need then to identify other factors that relate to the dependent variable. These include such factors as the attitudes and skills of the staff, the overall service delivery system in which the center operates, and the extensiveness and availability of existing services.

It is hoped that future studies of this topic will build on the data presented here by directly examining some of the issues raised in the discussion. This research has not been able to examine how, for example, the quantity of services offered by senior centers in different communities is related to the quantity and quality of services received by the elderly, particularly those with greater and more varied needs. Rural senior centers do offer fewer services, but it is the implication of this fact for the rural elderly that is in need of considerable more study.

References

Correll, F. (1975). Transportation of the rural aged. In R. Atchley & T. Byerts (Eds.), *Rural environments and aging*. Washington, DC: Gerontological Society of America.

Econometrics (1981). Review of reported differences between the rural and urban elderly: Status, needs, services and service costs. (Contract No. 105-80-C-065). Washington, DC: Administration on Aging.

Estes, C. (1980). *The aging enterprise*. Jossey-Bass: San Francisco.

Hanssen, A. M., Main, a. H. J., Buckspan, L. M., Henderson, B. E., Helbig, T. L., & Fair, S. P. (1978). Correlates of senior citizen participation. *The Gerontologist, 18*, 193–199.

Kim, P. K. (1981). The low income elderly: Under-served victims of public inequity. In P. K. Kim & C. Wilson (Eds.), *Toward mental health of the rural elderly*. Washington, DC: University Press of America.

Krout, J. A. (1983a). Correlates of senior center utilization. *Research on Aging, 5*, 339–352.

Krout, J. A. (1983b). The organization, operation, and programming of senior centers: A national survey. Final report to the AARP Andrus Foundation, Washington, DC.

Krout, J. A., & Larson, D. (1980, August). Self assessed needs of the rural elderly. Paper presented at the annual meeting of the Rural Sociological Society, Ithaca, NY.

Leanse, J. (1977). The senior center: Individual in the community. In R. Kadish (Ed.), *The later years: Social applications of gerontology*. Monterey, CA: Brooks/Cole Publishing Company.

Lee, G., & Lassey, M. (1980). Rural-urban differences among the elderly: Economic, social and subjective factors. *Journal of Social Issues, 30*, 62–74.

National Council on the Aging. (1975). *Senior centers: Report of senior group programs in America*. Washington, DC: National Council on the Aging.

Nelson, G. (1980). Social Services to the urban and rural aged: The experiences of area agencies on aging. *The Gerontologist, 20*, 200–207.

Schulder, D. (1985). Older Americans Act: A vast network of public, private agencies. *Perspective on Aging, 14*, 5–7.

Storey, R. (1962). Who attends a senior activity center? *The Gerontologist, 2*, 216–222.

Taietz, P. (1973). Structural complexity of New York State Communities. Health and Welfare. *Search, 2*, 1-6.

Taietz, P., & Milton, S. (1979). Rural urban differences in the structure of services for the elderly in upstate New York counties. *Journal of Gerontology, 34*, 429–437.

Tuckmann, J. (1967). Factors related to attendance in a center for older people. *Journal of the American Geriatrics Society, 15*, 474–479.

United States Senate Committee. (1979). Older Americans Act: A staff summary. Washington, DC: United States Government Printing Office.

White House Conference on Aging. (1971). Toward a national policy on aging: Final report, vol. II. Washington, DC: United States Government Printing Office.

Youmans, E. (1967). *Older rural Americans*. Lexington: University of Kentucky Press.

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Community organizations can be utilized as the loci of volunteer services for the homebound frail elderly and can be particularly effective in rural areas where the population-at-risk is dispersed. A description of an Administration on Aging (AoA) Model Project conducted in an Appalacian county, in which organizations were asked to assume responsibility for volunteers, highlights the importance of volunteer services for outreach and casefinding activities in rural communities.

Key Words: Volunteerism, Frail elderly, Rural services

Organizational Volunteers for the Rural Frail Elderly: Outreach, Casefinding, and Service Delivery[1]

Christine L. Young, PhD,[2] Donald H. Goughler, MSW,[3] and Pamela J. Larson, MRP[4]

During the past decade numerous policy conferences have concluded that accessibility and availability of appropriate services are key issues in service delivery to the aged, particularly for those residing in rural areas. Advocacy organizations have taken the position that the rural elderly are an isolated population group with special needs, and were successful in having the potential isolation of the rural elderly recognized in the Older Americans Act Amendments of 1978.

Cobb (1976) and others (Caplan, 1976; Dean & Lin, 1977) have reported that support systems can fortify a person's physical and psychological coping mechanisms. Most recently, the value of social support has been explored in projects that analyze ways to strengthen natural or family supports of frail elderly (Kulys & Tobin, 1980; Lopata, 1975; Shanas, 1979). Others (Bennett, 1980; Biegel & Naparstek, 1982; Ehrlich, 1979) have identified community groups as readily accessible and capable informal supports for the frail elderly.

Model Project for the Frail Elderly of Fayette County

Background and Overview

Based on the preceding contentions that community groups could be incorporated into an organized support system, the Southwestern Pennsylvania Area Agency on Aging (SPAAA), in 1980, constructed a project based on the assignment of volunteerism responsibilities to organizations rather than to individuals. The SPAAA is a nonprofit corporation with headquarters in Monessen, Pennsylvania, and is designated by the Pennsylvania Department of Aging as the Area Agency on Aging (AAA) for three Southwestern Pennsylvania rural counties: Fayette, Washington, and Greene. The project was set in Fayette County, Pennsylvania, a large rural county located in the Appalacian Mountain foothills and the largest of the three counties in the AAA's planning and service area. Of the county's 159,000 people, 17% are considered below the poverty level and the unemployment rate during the 1980s has reached 30%. Twenty percent of the county's population are 60 years of age or older. More than 15% of these older people are poor and many are geographically and socially isolated in the small coal mining "patch" communities that are scattered throughout the county.

Of the 8,449 persons 74 years and older enumerated by the 1980 census, approximately 2,000 were projected to be homebound due to frail health. Although services were available, such as homebound meals, homemaker, and chore services that would be needed by frail elderly living in their own homes, the AAA was serving only 400 homebound older persons prior to the development of the network of organizational volunteers in 1980. With the ever-increasing proportion of frail elderly in the county's population and the escalating costs of long-term care within institutional settings, the early identification of the population-at-risk of institutionalization was critical for effective planning. The invisibility of this large and needy group of elderly was a major problem for the SPAAA.

Based on these observations, the SPAAA in 1980 proposed to initiate a Model Project on Aging designed to demonstrate the feasibility of support organizations as volunteer resources for the homebound

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elderly. The project proposed the following goals: 1) to enlist and activate existing community organization as service providers for frail elderly residents of the Fayette County area; 2) to match community organizations with older persons through client identification, needs assessment strategies, and organizing and training activities; 3) to coordinate these organizational volunteers; and 4) to amalgamate the service agencies and volunteers through a client-focused planning and management process.

The project staff identified more than 300 established organizations that existed in this rural county, including such service organizations as churches, school groups, fraternal organizations, and veteran's groups. Subsequently, the project made introductory contact by telephone or letter with 373 organizations during the 3 years and more than half of the organizations agreed to meet with project staff and to discuss the project more fully. Following meetings with community organizations, 50 agreed to participate, and subsequently the project staff arranged meetings with members for the purpose of training and to negotiate volunteer roles; 41 organizations provided ongoing volunteer services.

After they received initial training and had selected such tasks as friendly visiting, recreational activities, or shopping for the homebound elderly, the organizations undertook a service delivery role. First, they were asked to inventory their communities and identify persons who were older than 75 years of age and essentially homebound. AAA caseworkers then accompanied volunteers to the homes of the frail elderly and conducted an intake and a needs assessment. Next, professional staff analyzed the assessment, determined areas of needs, and made referrals to appropriate resources. When needs surpassed the capability of organizational volunteers, professional staff initiated referrals to formal social service agencies. Likewise, when feasible, volunteers were assigned to undertake a service provider role with the clients.

During the 3-year project period, 472 frail elderly persons were identified by organizational volunteers. Of these 472, 277 (58.7%) had no previous contact with the SPAAA, whereas 195 (41.3%) had at least one previous contact with the formal AAA system. More than one quarter (26.1%) had monthly incomes of less than $500, and a high perceniage (46.2%) lived alone. Almost one half (47.7%) were 80 years of age or older, and the mean age was 79.4 years.

Organizations as Volunteers for the Frail Elderly

The results of the activation process indicated that of the 41 organizational volunteers, youth and school groups (12 of 41) and churches (11 of 41) were most likely to participate in the Model Project. Regarding types of groups, youth groups were proportionately most likely to participate (12 of 23 contacted.) In addition, the youth and school groups provided significantly more service units, as well as a greater variety of volunteer services for the homebound frail elderly than other types of organizations. Specifically, youth groups provided 44.5% of all services, while other groups provided less than 20% (social action groups: 17.1%; senior citizen groups: 16.0%; churches: 12.1%; and fraternal organizations: 10.3%).

Although the volunteer organizations could select a variety of tasks to help the elderly, the majority (84.6%) of the 14,143 service units were for those services most directly related to interpersonal contact: friendly visiting and telephone reassurance. Other volunteer activities (i.e., homemaker and chore services, recreation) were performed much less often and by fewer organizations. The most extensive organizational involvement was with friendly visiting; 75% of the organizations were active with telephone reassurance. The youth and school groups were the most involved with chore services for the elderly; 37% of the volunteer organizations were active in these tasks. Although transportation and homemaker services were needed for this population, few organizational volunteers assisted with these problems.

The characteristics of the volunteers themselves influenced the services performed. Clearly, a selection process occurred prior to the actual volunteer activity since certain organizations and certain types of potential volunteers did not choose to participate in the Model Project. Adults (25 to 55 years) were not likely to participate; frequently people in these age groups had volunteer commitments related to their children's activities in school or sports events or to their church. People in this age group were also most likely to have full-time employment, child rearing responsibilities and, at times, "moonlighting" for a second job, which all precluded new volunteer responsibilities.

Fraternal organizations often have nationally designated volunteer projects for such particular populations as the blind and were unable to assume other volunteer commitments. Likewise, the priority for churches was caring for members of their congregations, with less emphasis on other community residents. The idea of volunteering to help the homebound frail elderly appeared to be most attractive to young people and the "young-old."

In some respects, the strengths and limitations of these volunteers influenced the volunteers' tasks chosen with most frequency. The older volunteer was not likely to provide transportation, chore services, or other manual labor. The adolescent volunteer, on the other hand, required additional supervision in their tasks. Friendly visiting and telephone reassurance, however, were highly valued needs by the homebound person and were services that appealed to both the young and older volunteers. Through these personal relationships, the volunteers maintained a critical linkage between the homebound person and the professional health and social service system. Likewise the intergenerational support systems in rural communities were fostered between the school system, churches, and the professional aging network of services.

Outreach and Casefinding: The Rural Homebound Elderly

One of the most difficult tasks in providing services in rural areas, especially isolated communities, is casefinding. The efforts of the volunteer organizations demonstrated the effectiveness of the use of community groups in casefinding of the frail homebound elderly. A primary objective of the Model Project was casefinding with specific emphasis on those homebound elderly living in the most rural communities of the county. It is significant that more than half (58%) of the 443 clients identified in Fayette County by the Model Project were new clients, as shown in Table 1. It is even more significant that these "new" clients resided in many small communities in which the AAA had not previously served clients. For example, of the 43 Fayette County communities where Model Project clients resided, 17 communities had populations of less than 500 and 12 communities had 500 to 999 people. Further, these smallest communities contributed disproportionately to the overall client total with the towns of less than 500 having 117 clients, 26.4% of the total Model Project client group. Overall, 36% of the clients identified by the organizations lived in communities of 1,000 or fewer residents. The success of the project in opening service opportunities to small communities is further evidenced by the fact that 66% of the frail elderly clients living in communities of less than 500 people and 58% of those living in communities of 500 to 999 residents were new clients.

Clearly, part of this positive reaction was due to the respect of the volunteer for the homebound elderly person in determining their own needs. For example, the elderly person may have decided on a range of services such as assistance with yard work, referral for medical care, or friendly visiting by a volunteer. The depth and frequency of contact was dependent on the elderly person's wishes, with the volunteer maintaining a regular follow-up to determine changes in client need. Therefore, it appeared that community organizations were highly successful as casefinders of the frail elderly in rural areas, particularly of those persons living in the least populated and most isolated communities. This success implies that by continuing the project methodology, the AAA can maintain extensive low cost program outreach in the future.

Table 1. Client Caseload According to Population of Client Residence

Population	All clients		Newly identified clients	
	n	%	*n*	%
Less than 500	117	(26.4)	77	(65.8)
500–999	45	(10.2)	26	(57.8)
1,000–1,999	46	(10.4)	31	(67.4)
2,000–2,999	36	(8.1)	23	(63.9)
4,000–4,999	40	(9.0)	19	(47.5)
Greater than 10,000	159	(35.9)	80	(53.0)
Total	443	(100.0)	256	(57.8)

Policy Implications

Results showed that community organizations can perform important functions related to service for older persons. These functions, such as casefinding and the provision of adjunctive in-home assistance, may have value in reducing the pace of decline of the homebound older person. The experience of organizational activation confirmed that older persons themselves are important volunteers. Likewise, youth and school organizations were also highly involved, providing strong support for the value of intergenerational programming. On the other hand, this project does not imply that non-traditional resources can replace traditional professional resources. Instead, a combination of the two in an appropriate amalgam seems to be desirable.

Finally, the results of the Model Project clearly suggest that services for older persons should emphasize community outreach. In a locale where a sophisticated service delivery system had existed for 10 years, community groups acting as volunteers were able to identify nearly 300 people, almost 20% of the target population, who either had not been previously identified, or had not been provided adequate services. The findings suggest that a national outreach policy should include families, organizations, and other community-based entities. The volunteer system may be used effectively in this role and need not be an expensive initiative. The results in Fayette County demonstrate that the use of organizations in a volunteer role can greatly expand the outreach thrust of the formal aging network and create a more comprehensive and accessible support system for the homebound frail elderly, especially those living in rural areas.

References

Bennett, R. (Ed.). (1980). *Aging, isolation and resocialization*. New York: Van Hostrand Reinhold Co.

Biegel, D., & Naparstek, A. (Eds.). (1982). *Community support systems and mental health. Practice, policy and research*. New York: Springer Publishing Co.

Caplan, G. (1976). The family as support system. In G. Caplan & M. Killilea (Eds.), *Support systems and mutual help: Multidisciplinary explorations*. New York: Greene Stratton.

Cobb, S. (1976). Social support as moderator of life stress. *Psychosomatic Medicine, 38*, 300–314.

Dean, A., & Lin, N. (1977). The stress-buffering role of social support. *Journal of Nervous and Mental Disease, 165*, 403–417.

Ehrlich, P. (1979). Service delivery for the community elderly: The mutual help model. *Journal of Gerontological Social Work, 2*, 125–135.

Kulys, R., & Tobin, S. (1980). Older people and their responsible others. *Social Work, 25*, 138–145.

Lopata, H. (1975). Social support systems of elderly urbanites: Chicago of the 1970s. *The Gerontologist, 15*, 35–41.

Shanas, E. (1979). The family as a social support system in old age. *The Gerontologist, 19*, 169–174.

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Financial ratios were calculated for a sample of 109 Continuing Care Retirement Communities (CCRCs). Problems with regard to asset productivity, profitability, and equity levels were noted. Facilities offering a full nursing care contract displayed poorer financial profiles than those offering a less comprehensive care contract. A risk-spreading charge structure for financing health care needs appeared to exist among CCRCs providing a full-care contract.

Key Words: Life care, Financial viability

Continuing Care Retirement Communities: An Analysis of Financial Viability and Health Care Coverage[1]

Hirsch S. Ruchlin, PhD[2]

Life care communities are attracting a great deal of attention as an interesting community-based privately-financed long-term care delivery system. These communities consist of facilities where, for a substantial entrance fee and a monthly service fee, an individual is assured of lifetime housing, social services, and nursing care. Typically, a life care facility, which is popularly known as a continuing care retirement community (CCRC), consists of apartments or residential units, a nursing care facility, recreation facility, and other service units in a campus-like setting. The unique and attractive feature of CCRC living is its health care guarantee. Implicitly provided is insurance against the cost of long-term care, and supplemented is the coverage of acute health care services that are financed by Medicare and private insurance. This insurance package is provided in combination with independent living arrangements which the resident can enjoy as long as health permits (U.S. Senate, 1983; Winklevoss & Powell, 1984).

Current interest in CCRC living stems from the fact that many middle-class Americans should be able to afford CCRC care. The growth of private pensions in the post-World War II era, coupled with almost universal enrollment in social security, and in many instances, the ownership of a house on which the mortgage has been redeemed, provide the necessary financial base for entering a CCRC. Concerns have been voiced, however, about CCRCs' financial ability to honor a lifetime commitment and, if the commitment is not honored, what happens to the residents' investment. This concern has been heightened by a number of highly publicized CCRC closings that occurred in the late 1970s and early 1980s and has led some individuals to suggest that government regulation of CCRCs may be required to safeguard residents' interests (Cohen, 1980; Pies, 1984; U.S. Senate, 1983).

From a financial perspective, the need for regulation depends, in large measure, on whether CCRCs appear to be in a good financial state and thus capable of honoring their commitment for lifetime care or whether financial problems are present or imminent. Hardly any information exists in the public domain about the financial status of CCRCs. Similarly, little is known about either how the implicit health care coverage is financed or the impact of more extensive health care coverage on financial viability. This study was undertaken to begin the necessary research in this area.

Methodology

Measuring Financial Viability

Financial viability was assessed by an accounting technique known as ratio analysis, which is widely used in the business community to evaluate an entity's financial performance. Asset and liability data reported in the balance sheet, and revenue and expense data reported in the statement of revenue and expense are used to calculate these ratios. By combining various data elements, which by themselves do not indicate a good or bad situation, the ratios provide insights into an entity's financial position. For example, stated independently, the values for total operating revenue and total assets have little meaning. When the ratio of the two is taken, the financial productivity of an organization's assets (i.e., how much revenue the assets are generating) is indicated.

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Ratios are routinely used to analyze four aspects of a facility's financial status: (1) liquidity, which indicates an entity's ability to meet maturing short-term obligations, (2) capital structure, which measures the extent of debt financing, (3) activity, which represents the financial productivity of assets, and (4) profitability. The four ratios reported here (current, long-term debt to fixed assets, total asset turnover, and markup) depict a facility's status in each of these financial domains. Two additional financial indicators (net income and net worth) are also reported to sharpen the financial profile of the CCRC industry. Although developed originally for for-profit industries, ratio analysis has been adapted for the largely non-profit health care industry (Berman & Weeks, 1976; Caruana & Kudder, 1978; Caruana & McHugh, 1980; Choate, 1974; Cleverley, 1982; Seawell, 1975) and has been used in health services research (Alexander & Lewis, 1984; Bentkover et al., 1985, Brecher & Nesbitt, 1985; Coyne, 1985; Levitz & Brooke, 1985; Ruchlin et al., 1973).

Study Sample and Data Sources

The *National Continuing Care Directory* (Raper, 1984), compiled under the sponsorship of the American Association of Homes for the Aging (AAHA), was used to identify the universe of CCRCs. To be included in this study, the CCRC had to have been in operation since 1981 and have both independent living units (i.e., apartments) and nursing care. These criteria yielded a potential study population of 232 CCRCs. Mailed requests for annual financial report data yielded a study sample of 109 facilities (a 47% response rate).

The accounting data necessary to calculate the indicators of financial viability were abstracted from the annual financial reports. Facility characteristic data were abstracted from AAHA's CCRC directory. The directory, which is meant to serve as a consumer's guide to selecting a CCRC, contains 1983 self-reported data on location, ownership, facility age, size, entry and monthly charges, and scope of services. To maintain time-period comparability, 1983 financial data were selected for use in this study. A more detailed financial analysis utilizing 13 ratios and encompassing data for 1981 and 1985 is reported elsewhere (Ruchlin, 1987).

Description of the Study Population

A profile of the CCRC industry based on the data included in the directory is presented in Table 1 both for the eligible study population (n = 232) and the study sample (n = 109). These data provided some interesting insights into the nature of the CCRC industry and into the extent to which the study sample was representative of the eligible universe. Before assessing the contents of the table, a number of variable definitions are required. The term one-bedroom includes small apartments that are called studio or efficiency in the directory and the term two-bedroom includes units called cottages and three-bedroom apartments (the latter are available in less than 5% of the CCRCs). Residential or personal care units represent a midpoint between independent living and nursing care. Tenants living in such units receive some monitoring and assistance with activities of daily living. The term general services encompasses meals, presence of an activities director, apartment cleaning, apartment maintenance, carport or garage, flat linens supplied, flat linens laundered, guest accommodations, kitchen appliances, personal laundry facilities, prescribed diet, scheduled transportation, storage (outside of living unit), telephone service, tray service (when ordered by a physician), and utilities.

CCRCs are classified by the directory as providing either a full, partial, or minimal nursing care contract primarily on the basis of the level of nursing care charges vis-a-vis the monthly rental charge for independent living units. A contract is considered extensive (or full) if one of two conditions prevail. First, the resident continues to pay the apartment monthly fee, or the monthly fee associated with the smallest independent living unit, regardless of a temporary or permanent need for nursing care. Alternately, CCRCs are considered to provide a full nursing care contract if they provide more than 30 days of nursing care at no additional charge and then charge a fee that is less than 80% of the posted per diem charge. A partial, or limited contract is one under which the CCRC provides 10 or more days of nursing care per year free (that is, the resident continues to pay the monthly apartment fee), and if additional nursing care is required, the resident pays a fee that is 80% or more of the per diem charge. Under a minimal contract, the resident is entitled to less than 10 days of free care per year and is expected to pay the posted per diem charge for nursing care thereafter. Where the directory noted that the nursing care rate was the same as the apartment rate but the apartment rate did not include three meals per day, the extra cost of the nonincluded meals was added to the listed rate. The assumed cost of extra meals was: one meal/day = $5; two meals/day = $15; and three meals/day = $20.

In an attempt to minimize geographic cost-of-care differences, all charge data were converted to a constant regional base through the use of U.S. Department of Labor Consumer Price Index data.

With a few exceptions, the sample was representative of the universe from which it emanated. Although CCRCs in the sample are larger than those in the population having a larger resident population and more independent living units, they resemble the population, having a larger resident population tus, facility age, entry and monthly charges, and scope of services. They do, however, provide fewer meals as part of the standard contract and a larger percentage offer financial aid to residents who exhaust their resources. Finally, a greater proportion of CCRCs in the sample specifically require their residents to have private health insurance than do CCRCs in the population-at-large, although they do not differ from the larger population with regard to

Table 1. CCRC Facility Characteristics: Population and Study Sample, 1983

Variable	Population Mean (*SD*) (*n* = 232)	Sample Mean (*SD*) (*n* = 109)
Location		
Northeast (%)	12.5 (33.1)	9.3 (29.0)
North Central (%)	33.2 (47.2)	38.5 (48.9)
South (%)	29.7 (45.8)	25.7 (43.9)
West (%)	24.6 (43.1)	26.5 (44.4)
Non-profit (%)	91.8 (27.5)	90.8 (29.0)
Facility age	19.6 (18.0)	17.6 (14.5)
Resident population	267.8 (145.4)	309.3 (161.6)*
Independent living units (number)	189.5 (111.4)	218.5 (127.4)*
Entrance fee - 1 bedroom	$31,583 (14,671)	$33,704 (14,912)
Entrance fee - 2 bedrooms	$57,464 (30,591)	$58,950 (21,458)
Monthly fee - 1 bedroom, 1 person	$626.61 (209.63)	$609.76 (192.46)
Monthly fee - 1 bedroom, 2 people	$979.82 (407.74)	$951.96 (365.78)
Monthly fee - 2 bedrooms, 1 person	$775.98 (347.04)	$760.53 (332.39)
Monthly fee - 2 bedrooms, 2 people	$1,060.05 (485.12)	$1,003.94 (437.09)
Residential or personal care units		
Percentage with such units	47.8 (50.1)	52.3 (50.2)
Number of units	47.1 (48.4)	42.1 (32.8)
Monthly fee	$867.16 (195.67)	$870.09 (180.25)
Monthly basic nursing rate	$1,150.97 (372.07)	$1,149.04 (361.42)
Nursing care contract		
Full (%)	51.3 (50.1)	55.0 (50.0)
Partial (%)	27.2 (44.6)	25.7 (43.9)
Minimal (%)	21.1 (40.9)	19.3 (39.6)
Skilled nursing beds (number)	49.0 (41.9)	56.6 (40.1)
Intermediate care nursing beds (number)	29.6 (46.9)	24.6 (38.1)
Medicare certified (% yes)	54.3 (49.9)	63.3 (48.4)
Medicaid certified (% yes)	51.3 (50.1)	57.8 (49.6)
Number of meals included in fee	1.9 (1.2)	1.7 (1.2)*
Number of general services included in fee	11.4 (2.4)	11.6 (2.3)
Number of health services included in fee	5.7 (3.8)	5.5 (3.6)
Physician care in fee (% yes)	35.8 (48.0)	31.2 (46.5)
Dental care in fee (% yes)	3.9 (19.4)	0.9 (9.6)
Home health care in fee (% yes)	36.6 (48.3)	40.4 (49.3)
Hospital care in fee (% yes)	21.6 (41.2)	20.2 (40.3)
Occupational therapy in fee (% yes)	34.5 (47.6)	33.0 (47.2)
Physical therapy in fee (% yes)	31.5 (46.5)	31.2 (46.5)
Podiatry in fee (% yes)	9.1 (28.8)	7.3 (26.2)
Prescription drugs in fee (% yes)	14.7 (35.4)	13.8 (34.6)
Recreational therapy in fee (% yes)	74.1 (43.9)	74.3 (43.9)
Referred specialist care in fee (% yes)	23.7 (42.6)	22.0 (41.6)
Social services in fee (% yes)	87.9 (32.6)	88.1 (32.6)
Therapy for psychiatric disorders in fee (% yes)	8.2 (27.5)	8.3 (27.7)
Medical insurance required (% yes)	65.1 (47.8)	69.7 (46.2)
Medicare - Part A required (% yes)	63.8 (48.2)	68.8 (46.5)
Medicare - Part B required (% yes)	63.4 (48.3)	67.9 (46.9)
Blue Cross Blue Shield required (% yes)	28.4 (45.2)	26.6 (44.4)
Private insurance required (% yes)	19.8 (40.0)	28.4 (45.3)*
Financial aid available (% yes)	72.8 (44.6)	81.7 (38.9)*
Residents association (% yes)	94.4 (23.0)	96.3 (18.9)

* Significantly different from the population value at $p < 0.01$.

Table 2. CCRC Sample Financial Ratio Values, 1983 (n = 109)

Ratio	Formula	Mean(SD)	Number of observations above mean	Median	Quartile range
Current	Current assets[a] / Current Liabilities[b]	2.29 (2.49)	39	1.40	0.80–2.79
Long-term debt to fixed assets	Long-Term Debt[c] / Fixed assets[d]	0.62 (0.31)	54	0.63	0.40–0.73
Total asset turnover	Operating Revenue / Total Assets	0.44 (0.46)	36	0.37	0.27–0.50
Markup	Operating Revenue / Operating Expense	0.94 (0.17)	64	0.97	0.86–1.03

[a]Current assets are defined as assets which are cash or will be converted into cash and consumed in the normal operation of the CCRC within 1 year from the balance sheet date.
[b]Current liabilities are those liabilities which will be discharged with current assets in the normal course of business within 1 year from the balance sheet date.
[c]Long-term debt is the amount of debt payments due after a year from the balance sheet date.
[d]Fixed assets,alternately known as capital assets, include land, land improvements, buildings, and equipment.

requiring that residents have some form of health care insurance.

Results

Financial Profile

Financial ratio values are reported in Table 2. Although mean, standard deviation, and number of observations above the mean data give a good indication of the distribution of the ratio values within the sample, most financial analysts use median data in describing and assessing an industry's financial profile. Indicated by the median ratio values for the CCRC sample was that current assets exceeded current liabilities by 40% and that long-term debt was less than the value of the fixed assets (long-term debt was 63% of the value of fixed assets). Both of these developments are favorable, in that a current asset profile that is less than current liabilities, and a long-term debt level in excess of fixed assets clearly signify major financial problems. Each dollar of total assets, however, generated only $0.37 of operating revenue, and operating revenue fell short of covering operating expense (i.e., a markup ratio less than 1). These profiles are not positive developments.

Critical values for these ratios, beyond which a firm is clearly heading for trouble, were not readily available for the non-profit sector. Data from other non-profit and service industries, however, did provide some guidance in this regard. Ratio values for acute care hospitals are reported in Table 3. These data are reported for all hospitals and for 100–199 bed hospitals in both urban and rural areas. The latter data may be the most relevant for CCRCs. Whichever hospital data set was used, CCRCs displayed a poorer financial profile than hospitals for the current, total asset turnover and markup ratios. That is, for acute care hospitals current assets exceeded current liabilities by a greater margin than in the CCRC industry. Similarly, hospitals were able to generate about

Table 3. Median Financial Ratio Values, Acute Hospitals, 1983

Ratio	All hospitals[a]	Hospitals with 100–199 beds	
		Urban	Rural
Current	1.82	1.79	2.04
Long-term debt to fixed assets	0.59	0.66	0.67
Total asset turnover	0.98	1.02	0.91
Markup	1.25	1.23	1.23

Source. Cleverley, 1986.

$1.00 in operating revenue for each $1.00 of total assets, and their operating revenue exceeded operating expense by about 25%. In only one instance, long-term debt to fixed assets, did the CCRC profile match that of the hospital sector.

Comparisons with industries other than acute care hospitals are limited by the type of ratios routinely calculated for for-profit entities. Current ratio values are available for some service sector industries. They are: residential care 2.5; personal care 1.4; skilled nursing care 1.5; rooming and boarding homes 1.3; and hotels, motels, and tourist courts 1.2 (Dunn & Bradstreet, 1985). Utilizing these data as a reference frame indicated that CCRCs' liquidity profile was fairly comparable to some other long-term care health related providers.

Two additional aspects of financial viability merit attention; net income and net worth. Net income reflects the relationship between total (operating and nonoperating) revenue and total expense. This statistic allows for the possibility of a nonoperating revenue surplus above nonoperating expenses offsetting an operating loss. Net worth measures a firm's equity; that is, the extent to which total assets exceed total liabilities. Indicated by data presented in Table 4 was that over 40 CCRCs reported either a negative net income or a negative net worth profile.

Table 4. CCRC Sample Net Income and Net Worth Profile, 1983 ($n = 109$)

	Positive	Negative
Net income		
No. of observations	67	42
Mean	$334,225	-$402,382
No. of observations above mean	22	10
Net worth		
No. of observations	65	44
Mean	$3,132,764	-$2,103,741
No. of observations above mean	22	16
Net income and net worth		
No. of observations	43	20
Mean - net income	$382,348	-$407,501
Mean - net worth	$3,306,034	-$2,225,439
No. of observations above mean	10	3

A smaller but nonetheless notable number (20) reported both net income and net worth deficits. Average values for the net income and net worth deficits indicated that, relative to that segment of the industry that had positive values for these statistics, the losses were far from trivial.

Financial Characteristics By Type of Nursing Care Coverage Provided

Presented in Table 5 are financial ratio and charge data by type of living unit for those CCRCs that offer a full nursing care contract and those that offer either a partial or a minimal care contract. Dividing the sample into full, partial, and minimal nursing care categories yields no additional insights because CCRCs that offered a partial care contract closely resembled those that offered only a minimal care contract. Facilities with a full nursing care contract were in a poorer financial state than those offering less than a full contract. They had significantly higher debt to asset levels and a smaller percentage had positive equity profiles. Although additional significant differences did not emerge for the other financial indicators, the direction of the differences between the two nursing care contract groups generally supported the trend in favor of the partial and minimal care group.

Major differences appeared in the charge structure prevailing in both groups. Within the full care contract sector, entry fees for a one-bedroom apartment were 82% higher than in CCRCs with a partial or minimal care contract. For a two-bedroom unit the differential was 46%. Monthly charges for a one-bedroom apartment were 16% and 25% higher in the full care subgroup, depending on whether the apartment had one or two occupants. The charge differential for a two-bedroom unit was 41% and 49%. A similar pattern was noted for personal or residential care. Monthly charges in CCRCs offering a full care contract were 17% higher than in CCRCs offering a less comprehensive nursing care contract. Nursing care charges in full care CCRCs, however, were only 65% as much as those in CCRCs with partial or minimal care contracts. The significant relationships between the type of nursing care contract and both the entry fee and the monthly nursing rate persisted when, through the use of regression analysis, the CCRC's service mix was controlled for. An additional noteworthy feature (not shown in Table 5) was that CCRCs with a full care contract provided more general and health-related services to all residents as part of the regular fee than CCRCs with a partial or minimal care contract (general services: 12.6 services vs. 10.2 $p < 0.01$; health-related services: 6.5 services vs. 4.2, $p < 0.01$).

Discussion

Accepted financial indicators, used in both the for-profit and non-profit sectors of the economy have been used to assess the financial status of CCRCs. Such measures are commonly used by lenders to assess the credit worthiness of applicants for loans and capital financing. Facilities with a poor financial profile will have trouble, if not find it impossible, to raise additional funds. Furthermore, for the economy at-large and for acute-care hospitals, these financial indicators seem extremely good diagnostic measures in the prediction of bankruptcy (Cleverley, 1982). A problem does exist, however, in the fact that a relevant standard or critical value specifically geared to CCRCs does not exist for comparative purposes. Although industry-wide average ratio values for acute care hospitals are used as one such standard, they may not be appropriate as hospitals are much more capital-intense entities and rely very heavily on third party reimbursement for their revenue. Unfortunately, only current ratio data could be located for other service industries. It is for this reason that a lot of weight is put on net income and net worth indicators which can be better assessed without a standard for comparison.

Indicated by the analysis of the financial ratio and net income and net worth was that a substantial number of CCRCs in the study sample may be facing financial problems. The overall asset productivity profile, as indicated by the total asset turnover ratio, was quite low, and about a third of the sample had either a negative net income or a negative net worth profile. Even more troubling was the finding that 20 CCRCs (18.4% of the sample) reported both a negative net income and negative net worth level. These problems were not only evident for the single study year, 1983, but also emerged in an analysis of 1981 and 1985 data (Ruchlin, 1987). Winklevoss (1986) also noted some financial problems in his in-depth financial audits of 30 CCRCs; half the CCRCs studied were rated as not being financially sound.

Following standard accounting conventions, the financial viability analysis was based on operating characteristic data only. Given the nature of life care and the use of an entry fee that should be amortized over a relatively long period, it is possible that CCRCs with a negative income or a negative net worth profile have reserve funds that can easily cover the deficits. Noted in the financial reports submitted by 58 of the 109 CCRCs was the presence of restricted assets (i.e., accumulated reserves). It is unclear whether the remaining 51 facilities had no reserves or did not report them in the material submitted for

Table 5. Financial Indicators and Charge Profiles by Type of Nursing Care Coverage, 1983

Variable	Full care contract mean (SD) (n = 60)	Partial or minimal care contract mean (SD) (n = 49)
Current ratio	2.12 (1.96)	2.50 (3.03)
Long-term debt to fixed assets ratio	0.68 (0.30)	0.54 (0.31)*
Total asset turnover ratio	0.36 (0.14)	0.54 (0.66)
Markup ratio	0.93 (0.18)	0.96 (0.15)
Net income	$88,367 (652,293)	$3,899 (624,949)
Net worth	$433,174 (4,843,936)	$1,736,217 (2,496,630)
Percentage with positive net income	61.7 (49.0)	61.2 (49.2)
Percentage with positive net worth	41.7 (49.7)	81.6 (39.1)*
Entrance fee - 1 bedroom	$42,117 (11,674)	$23,188 (11,485)*
Entrance fee -2 bedrooms	$68,263 (19,224)	$46,886 (18,044)*
Monthly fee, independent living - 1 bedroom, 1 person	$649.48 (184.15)	$560.10 (192.94)**
Monthly fee, independent living - 1 bedroom, 2 people	$1,043.84 (352.37)	$835.02 (352.48)*
Monthly fee, independent living - 2 bedrooms, 1 person	$867.90 (287.45)	$614.81 (336.82)*
Monthly fee, independent living - 2 bedrooms, 2 people	$1,171.52 (367.49)	$785.70 (427.47)*
Monthly fee, residential or personal care	$914.24 (177.58)	$781.79 (154.62)*
Monthly basic nursing rate	$923.03 (172.16)	$1,425.78 (339.77)*

*Significantly different from full care contract value at $p < 0.01$.
**Significantly different from full care contract value at $p < 0.05$.

this project. Similarly, it is unclear whether additional reserves beyond those designated as restricted assets exist, but were not reported in the annual financial reports. Recognizing this caveat, the level of reported restricted assets can still be considered as a good proxy for total reserves. Of the 44 study facilities that had a negative net worth profile, 20 reported restricted assets. Even assuming that all the reserves could be applied to cover the net worth deficit, and thus be unavailable for future operating needs or capital replacement needs, in only 3 of the 20 cases did the reserves exceed the negative net worth level. In the remaining 17 CCRCs a negative balance (i.e., net worth deficit plus reserves) still emerged.

Another test of a similar nature could be applied to CCRCs reporting a negative net income value. Of the 42 facilities, 21 that reported a negative net income level in 1983 also reported restricted assets. If all the accumulated reserves were used to offset that year's income deficit, only 12 of 21 CCRCs would have had a positive balance (i.e., have had adequate reserves to cover the deficit). Nine CCRCs would still have had a negative position. Clearly, it is quite risky to apply all the accumulated reserves to wipe out a single year's income deficit and organizations that had to do this would not be considered to have a satisfactory financial profile.

Indicated by a disaggregation of the study sample by type of nursing care contract offered was that those CCRCs providing a full nursing care contract have a more precarious financial profile than those providing a less comprehensive care package. An examination of the charge structures of CCRCs by type of nursing care contract offered provided some insight into how the life care community's implicit health care guarantee is financed. Although monthly charges for nursing care are lower in CCRCs providing a more comprehensive contract, their entry charges, monthly independent living unit charges, and personal care unit charges are higher. Thus, they appear to employ a risk-spreading charge structure, with higher initial payments at entry to the facility rather than when the need for more health care occurs.

This risk-spreading feature does not appear, however, to adequately cover costs, as CCRCs that offer a more comprehensive health care contract appeared in a worse financial state. Not knowing the amount of care provided nor the characteristics of the residents of the community (phenomena not covered by the data set used in this project), it cannot be indicated whether the cause of the problem was charges that were not high enough to cover the level of services provided, or resident demand for care that exceeded the amount that was budgeted. Winklevoss (1986) has noted that CCRC boards of directors tend to be offended if their facility shows a profit because philosophically they are troubled by making money from people they are trying to serve. Being non-profit entities, and in many cases church-sponsored, such a situation is believed to be wrong. Consequently, prices are kept low and not set high enough to build a financial reserve for the time when more care will be needed. The profile that emerged from this study not only supported this finding, but suggested that it

may be more severe in that sector of the industry providing the most comprehensive care contract.

It is important to recognize that this study was limited by the type of data available for use. Annual financial reports, at best, present a summary of an organization's business operations and do not permit analyses in which the source of the problem is determined. Furthermore, the CCRC directory, although appearing to contain numerous entries depicting a CCRC's structure and service mix, is not really an optimal research source. It is, however, the only publicly available data depository of its type, and was, perforce, used. Its limitations can be illustrated by a number of examples. First, no information is given on the amount of general or health-related services that are included in the fee. Clearly, the amount of service provided can have as much of an impact on economic performance as the mere presence of the service. Basic descriptive data are often inadequate. For example, facility age reflects the number of years that the CCRC has been in operation and not the age or length of residency of the tenants. The latter statistic, which would reflect the expected service needs of the tenants, should have a more direct relationship to economic performance than the number of years that the CCRC has been in business. Finally, the method used to determine the comprehensiveness of the nursing care contract at best reflects a purely financial perspective and has no clinical meaning. These problems explain why multivariate analyses relating structural and operating characteristics to financial state are not reported. Hopefully, future researchers will have access to more comprehensive data sets and will explore this important area.

Very few studies have been conducted on the life care industry. The industry has grown so dramatically in the last few years that there are over 600 such communities in existence today and estimates of potential need go as high as 2,000 (Rose & Lomanno, 1985). Despite this prediction, financial problems may loom on the horizon for this industry. Such problems may diminish the attractiveness of CCRCs as a viable private sector option for providing a comprehensive long-term care service package. These problems may also indicate a need for some public sector initiative to insure the investment of the elderly in those CCRCs that may soon face financial difficulties. Clearly, additional research is needed to explore the correlates of poor financial performance and to confirm the findings reported here. The type of a commitment that a person makes upon entering a CCRC creates a sense of urgency to learn more about the life care industry than is currently known. Researchers and policymakers need to pay much more attention to this component of the long-term care industry than they have to date.

References

Alexander, J., & Lewis, B. L. (1984). The financial characteristics of hospitals under for-profit and nonprofit contract management. *Inquiry, 21,* 230–242.

Benfkover, J. D., Schroeder, R. E., & Lee, A. J. (1985). Effects of rate review on the financial viability of New York hospitals: A retrospective analysis. *Hospital and Health Services Administration, 30,* 94–105.

Berman, H. J., & Weeks, L. E. (1976). *The financial management of hospitals.* Ann Arbor, MI: Health Administration Press.

Brecher, C., & Nesbitt, S. (1985). Factors associated with variation in financial condition among voluntary hospitals. *Health Services Research, 20,* 267–300.

Caruana, R., & Kudder, G. (1978). Seeing through the figures with ratios. *Hospital Financial Management, 8,* 16–26.

Caruana, R., & McHugh, E. T. (1980). Comparing ratios shows fiscal trends. *Hospital Financial Management, 10,* 30–36.

Choate, G. M. (1974). Financial ratio analysis. *Hospital Progress, 55,* 49–57 67.

Cleverley, W. O. (1986). *Hospital industry analysis report, 1981–1985.* Oak Brook, IL: Healthcare Financial Management Association. MD: Aspen Systems Corporation.

Cleverley, W.O. (1986). *Hospital industry analysis report, 1981–1985.* Oak Brook, IL: Healthcare Financial Management Association.

Cohen, D. (1980). Continuing-care retirement communities for the elderly: Potential pitfalls and proposed regulation. *University of Pennsylvania Law Review, 128,* 883–936.

Coyne, J. S. (1985). Measuring hospital performance in multi-institutional organizations using financial ratios. *Health Care Management Review, 10,* 35–42.

Dunn & Bradstreet Credit Services. (1985). *Industry norms and key business ratios, 1984–1985 Edition.* Murray Hill, NJ: The Dunn & Bradstreet Corporations.

Levitz, G. S., & Brooke, P. B. (1985). Independent versus system-affiliated hospitals: A comparative analysis of financial performance, cost and productivity. *Health Services Research, 20,* 315–339.

Pies, H. E. (1984). Life care communities for the aged: An overview. In P. H. Feinstein, M. Gornick, & J. N. Greenberg (Eds.), *Long-Term care financing and delivery systems: Exploring some alternatives.* HCFA Publication No. 03174. Washington, DC: U.S. Government Printing Office.

Raper, A. T. (Ed.). (1984). *National continuing care directory.* Mount Prospect, IL: AARP Books/Scott, Foresman and Co.

Rose, A. M., & Lomanno, M. V. (1985). *Lifecare retirement center industry, 1985.* (Mimeograph). Philadelphia, PA: Laventhol & Horwath.

Ruchlin, H. S. (1987). Are CCRCs facing a promising future or potential problems? *Healthcare Financial Management, 41,* 54–60.

Ruchlin, H. S., Pointer, D. D., & Cannich, L. L. (1973). A comparison of for-profit investor-owned chain and [illegible] hospitals. *Inquiry, 10,* 13–23.

Seawell, L. V. (1975). *Hospital financial accounting: Theory and practice.* Chicago, IL: Hospital Financial Management Association.

U.S. Senate, Special Committee on Aging. (1983). *Life care communities: Promises and problems.* Washington, DC: U.S. Government Printing Office.

Winklevoss, H. E. (1986). Continuing care retirement communities: Issues in financial management and actuarial prediction. In I. A. Morrison, R. Bennet, S. Fitsch, & B. J. Gurland (Eds.), *Continuing care retirement communities. Political, social, and financial issues.* New York: Haworth Press.

Winklevoss, H. E., & Powell, A. V. (1984). *Continuing care retirement communities: An empirical, financial and legal analysis.* Homewood, IL: Richard D. Irwin.

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The supply of acceptable quality, paid custodial home care is threatened by the increasingly precarious financial condition of providers. Examined were the trends of the publicly-owned, for-profit providers. Restrictive public payments and the lack of private insurance coverage have contributed to the financial woes. Changes are urgently needed which address the financing of home care.

Key Words: Home care industry, Custodial care, Financing, Quality, Access

The Home Care Crisis of the Nineties[1]

Nancy M. Kane, DBA[2]

The demand and supply of unskilled home care services expanded rapidly in recent years with favorable reimbursement and demographic changes. A major policy question addressed here is whether the delivery system appears adequate, from a financial perspective, to meet the current and future needs of elderly people wanting to live at home despite growing disabilities. The financial health of suppliers of custodial home care services is of particular concern because of the vagaries of health insurance coverage. Due to coverage limitations of insurers, home care services are classified as either acute/medically-related (and, therefore, usually covered by insurance) or custodial/supportive (and, therefore, largely not covered by insurance). Unskilled services are used for both segments and often the same client requires both medical and custodial home care.

Examined was how publicly-owned for-profit providers of unskilled home care services have performed financially in the early to mid-1980s. A basic premise is that financial health is a necessary prerequisite to a high quality delivery system. Publicly-owned, for-profit providers would be expected to pursue the most financially rewarding segments of the home care market. The majority of agencies providing unskilled care are proprietary; since 1980, many such agencies previously forced by state licensing requirements to be nonprofit have converted to for-profit status due to Medicare certification changes. Thus, the experience of the publicly-held, for-profit chains is likely to be representative of the majority of unskilled providers. If the publicly-held group has been unsuccessful in achieving profitable performance, it is likely that the private providers competing for the same customers with the same basic service are also experiencing financial difficulties. If the home care delivery system is financially unstable, the long-run outlook for high quality, accessible service is at best uncertain and, at worst, unlikely.

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Demand Characteristics

Aging of the population and the related increased requirements for home personal assistance fuel demand. Of the nearly 3 million people 85 and older, an estimated 32% need some kind of personal assistance (Scanlon & Feder, 1984). This age cohort will continue to outstrip general population growth well into the 21st century.

Currently 5% to 10% of those needing assistance in activities of daily living must pay for all of it, and this percentage is likely to grow as younger women who formerly provided unpaid care join the work force and as the children of the elderly grow older. Unpaid caregivers such as family and friends cannot meet all the needs of another 16% to 25% of people needing personal care assistance (Scanlon & Feder, 1984). Recent evidence published by the Government Accounting Office (GAO) suggested that close to 46% of all Medicare users of home health care must purchase additional services beyond those Medicare and unpaid caregivers offer (GAO, 1986). Most of the purchased care is for unskilled assistance: Only 25% of the total 1982 disabled elderly population getting any home assistance received skilled (nursing) care (Liu et al., 1985).

Supply Characteristics

On the supply side, two related trends emerged: Medicare became a major payor for unskilled services associated with acute care, which constituted nearly 30% of total Medicare-reimbursed home visits in 1983, and for-profits became the fastest-growing group of providers during the early 1980s. In 1980, Medicare increased the number of for-profit agencies eligible for participation as skilled home care providers by eliminating the requirement of state licensure for Medicare certification. This opened the door to many proprietary agencies previously barred from certification by state regulations as well as encouraging many nonprofit agencies to convert to for-profit status. Other 1980 Medicare changes encouraged service utilization by eliminating prior hospitalization and deductible requirements. In 1984, the Medicare prospective payment program for hospitals began, which contained strong incentives for

hospitals to discharge elderly patients to acute home care. The number of Medicare-certified agencies grew from 2924 in 1982 to 5824 in 1985, and in the same period the proprietary share went from 17% to 30% of certified agencies. As result of these changes, in a short time, Medicare went from a relatively minor to a major financing source in the unskilled, albeit acute home care sector.

The payors for custodial care are largely Medicaid and self-paying patients. Self-paying patients play a major role in that Medicare does not pay for unskilled custodial services in the absence of acute skilled need, whereas Medicaid does not openly entitle home care in most states, with the notable exception of New York, where 68% of Medicaid home care dollars were spent in 1984 (Kavesh, 1986). Most private insurance policies do not cover custodial levels of home care, and most privately insured individuals are under age 65, where home care demand is much lower.

Proprietary companies have traditionally supplied the custodial and acute home care market with unskilled workers: personal aides, home health aides, and homemakers. Workers are brokered by these proprietary agencies. Until they were permitted to become certified, a significant segment of the proprietaries' business was to provide unskilled hourly workers to nonprofit community, local public, and hospital-based certified agencies, under contract. Proprietaries also served the non-Medicare (i.e., Medicaid and private pay) market with both skilled and unskilled home health workers.

To many proprietary agencies, the Medicare changes signalled the opening of a lucrative market that they scrambled to enter. Between 1980 and 1985, the more aggressive agencies expanded geographically by acquiring established single agencies in several states. The concept behind geographic expansion and multi-agency chains was that economies of scale existed for activities such as obtaining and maintaining contracts with Medicare, Medicaid, and other state funding sources, or recruiting and training workers. Also, some perceived that greater geographic coverage promised new market opportunities such as health maintenance organizations requiring multistate provider networks.

Several of these multistate firms (Quality Care, Superior Care, Tender Loving Care, StaffBuilders, Professional Care, Continental Health Affiliates) grew large enough to go public. In addition, large public companies already in the industry with home health service subsidiaries (Upjohn, H&R Block, Olsten, Kelly) expanded their home care divisions, and both types sought Medicare certification for at least some of their agencies.

How profitable is the home care service market? What are its long-term prospects for growth and financial health? More important, is it likely to provide quality, cost-effective personal care assistance to a growing cohort of elderly people in need?

The findings presented are not reassuring. The current financial environment is one of extreme constraint due to the combined forces of public policy cost containment, frail elderly poverty, and overly rapid, poorly capitalized expansion of the fragmented delivery system for unskilled care. The supply of unskilled aides is characterized by high labor turnover and entrenched worker poverty, which in turn leads to poor quality, reliability, and availability of services. Opportunities for cross-subsidy of unskilled services by other home services and products appear inadequate and are diminishing under current competitive and cost-containment trends. These conditions could lead to major disruptions for productive workers with elderly relatives at home and to tragic abuses of elderly people if the trends are not soon reversed.

Findings

Overview of the Home Care Market

The home health care market is predominantly a service one, as shown in Table 1, although the distribution of specialized and standard equipment, supplies, drugs, and solutions has grown to become a significant proportion of the medical (versus custodial) market, as well as the most profitable. Roughly $1 billion of medical market sales was for unskilled home services (part of primary services). These estimates, however, excluded custodial care. An estimate of the total sales of custodial services in 1985 is between $3 to $4 billion dollars (Levit et al., 1985; FIND/SVP, 1987). Most of that is delivered by unskilled homemakers, personal and home health aides. Somewhere between 30% to 40% of such care is paid for by patients themselves, with the remainder paid by Medicaid or other local public funding sources (Levit et al., 1985; Liu et al., 1985; Kavesh, 1986).

Although this report is devoted primarily to a discussion of the unskilled care providers' financial performance, the high-technology and standard medical equipment segments are briefly summarized with regard to the nature of their businesses, key market trends, reimbursement, and profitability performance. These medically-related product lines are increasingly undertaken by custodial home service providers as subsidiaries or joint ventures, pre-

Table 1. Segments of Medical Home Care Market

Product/Service	1985 Sales $ millions	Projected compound growth rate for sales, through 1990
High technology products and services	1,218	17.3%
Standard medical equipment	901	12.1%
Primary services[a]	3,593	7.1%[b]
Total	5,712	

[a]Nurses, aides, therapists.

[b]Relatively slow projected growth reflects *payment* constraints rather than demographic constraints.

Source. FIND/SVP 1985.

sumably to generate profits to support the less profitable primary care services.

High Technology

The high-technology segment is represented by the specialized providers of home infusion therapy (nutrition, hydration, antibiotics, chemotherapy, pain control), home renal dialysis, and respiratory and life support services. In 1984, infusion therapies were roughly $300 million in sales, as were respiratory services, whereas dialysis was around $200 million (Stephenson & Cron, 1986). Other technology-intensive services such as apnea monitors and bone growth stimulators also fell into this segment, at much lower 1984 revenues. These high-tech providers may simply distribute drugs, solutions, and equipment of large manufacturers (e.g., New England Critical Care), or they may be vertically integrated with the product manufacturer (e.g., Baxter Travenol-Travacare, and now, Baxter-Travenol-Caremark). Highly specialized nursing services are critical to the distribution of some of the high-technology products (i.e., antibiotics and chemotherapy). Vertical integration is increasingly common, because it assures the manufacturer of access to a quality distribution network. Most sales are by hospital referral, so the distribution companies must have very good product-service quality and local marketing capabilities. Although many independent home health service agencies have entered or tried to enter this segment of the business, it is becoming one of the most competitive. Freestanding agencies must squeeze referrals out of hospitals, which are themselves pursuing the high-technology home care business as a natural extension of acute inpatient care. Both must compete against national, vertically integrated high-tech home health companies with significant marketing expertise and resources. Because high-tech services are more likely to be provided to people under age 65 than the other home health segments, the opportunity to serve a privately-insured, hence more lucrative, payor mix draws in a large number of sophisticated, well-financed providers. They in turn make tough competition for the predominantly primary service companies.

The high-technology segment, as shown in Table 2, has been relatively profitable over the last 4 to 5 years, as the technology to bring home acutely ill patients has advanced significantly and third-party coverage has been expanded. In recent years, Caremark, which was predominantly a home infusion company, enjoyed operating margins of 14% to 15% on revenues of over $100 million. The alternate site division of Baxter Travenol, which included high-tech home health and a number of other services and products, reported a 12% profit margin in 1986.

The bloom may be off the rose, however, for this segment in the near future, as Medicare, declaring many of the high-tech products (oxygen, infusion therapies) to be commodities, is cracking down on allowable payment levels. Meanwhile, private third-party payors such as HMOs are negotiating for bids on a price basis. With nearly 1000 hospitals entering this segment of the market, competition could erode profit margins as fast or faster than Medicare cost containment policy.

Standard Medical Equipment

This segment is composed of thousands of specialized medical-surgical dealers and pharmacies, as well as a growing number of home health services agencies. They distribute durable (reusable) equipment such as beds and wheelchairs, as well as supplies such as ostomy, incontinence, and pressure sore products. A wide range of companies manufacture these products. Some also forward integrate into distribution, such as American Hospital Supply, which manufactured many of the products it distributed prior to its 1985 acquisition by Baxter Travenol. In addition, mass merchandising giants such as Sears, Roebuck & Co., Montgomery Ward, and J. C. Penney distribute standard equipment through mail order catalogs and in-store home health centers.

Medicare, which pays for almost half of all home medical equipment purchases, has recently taken steps to reduce the generous profit margins earned in this business. It eliminated the rental option for equipment that is more economical to purchase, and lowered allowable charge levels for most standard equipment and supplies. These moves had a significant impact on industry profit margins, which rapidly declined from an average 11.7% in 1982 to 6.2% in 1985 (Stephenson & Cron, 1986).

Thus neither high-tech nor standard equipment segments of the home care market are expected to generate the generous cash flow of the past, at least for the near term. The industry leaders (Baxter Travenol, Abbott Labs, BOC Group-Glasrock, W. R. Grace & Co.–National Medical Care) are strong corporations which are well prepared to enter the competitive battlefield, but they have for the most part avoided entering into the provision of unskilled services. Rather, providers of unskilled services, both for- and nonprofit, seek joint ventures or try to develop their own high-tech and durable medical equipment (DME) services. Given the industry trends already described, these providers will face a very competitive, increasingly low-margin market with increasingly high entry costs for developing a referral network.

The Unskilled Service Segment

The largest segment of home care is service, and unskilled care, as mentioned earlier, is a significant share of both custodial and medical home care. Most unskilled care clients in the custodial classification are disabled elderly people who have several chronic or permanent physical and mental impairments. The self-paying disabled people with the highest out-of-pocket expenditure tend to be senile and to need help with meals and taking medication. All self-paying disabled persons had greater prior use of hospitals and nursing homes than the general disabled population (Liu et al., 1985). Clients whose services

Table 2. Home Health Care Services — Publicly Held For-Profit Companies and Subsidiaries*

Parent Company	Operating unit(s)	Approximate 1983/84 revenues ($ million)
1 Abbott Laboratories	Abbott HomeCare Division	50
• The BOC Group, Inc.	Glasrock Home Health Care, Inc.	150
1 C. R. Bard, Inc.	Bard Home Health Division	30
	Shield Healthcare Centers	25
• Baxter Travenol Laboratories, Inc.	Abbey Homecare, Inc.	125
	Travenol Division	80
1 Beverly Enterprises	Beverly Home Health Services	100
: H & R Block, Inc.	Medical Personnel Pool	61
• Caremark, Inc.	Caremark, Inc.	118
1 Colgate-Palmolive Company	Kendall McGaw Laboratories	20
: Continental Health Affiliates, Inc.	Continental Health Affiliates, Inc.	14
• W. R. Grace & Co.	National Medical Care, Inc.	25
: GrandMet USA, Inc.	Quality Care Inc.	125
• Healthdyne, Inc.	Healthdyne Health Care Services	50
• Hospital Corporation of America	Hospital Corporation of America	55
• MEDIQ Incorporated	MEDIQ Healthcare Resources	25
2 National Medical Enterprises, Inc.	Health Products and Services Group	195
• New England Critical Care, Inc.	New England Critical Care, Inc.	14
o The Olsten Corporation	The Olsten Corporation	28
3 Omnicare, Inc.	HPI Health Care Services, Inc.	20
o Pritchard Services Group of America, Inc.	Kimberly Services, Inc.	10
o Professional Care, Inc.	Professional Care, Inc.	35
o ServiceMaster Industries Inc.	ServiceMaster Industries Inc.	20
o StaffBuilders, Inc.	StaffBuilders, Inc.	60
o Superior Care, Inc.	Superior Care, Inc.	22
o Tender Loving Care Health Care Services, Inc.	Tender Loving Care Health Care Services, Inc.	15
• Union Carbide Corporation	Linde Home Care Medical Systems, Inc.	25
o The Upjohn Company	Upjohn HealthCare Services, Inc.	155
o Westworld Community Healthcare, Inc.	Westworld Community Healthcare, Inc.	20
	Group Total:	1,672
	Market Total:	2,445

• = symbols used in column 1
o = mostly service, some unskilled
• = mostly hi-tech
1 = mostly DME, standard medical equipment and supplies
2 = mix, no one predominant segment apparent
3 = other, i.e., management services

Source. Medical and Healthcare Marketplace Guide, 1986.

are covered by state and local public funds are more likely to be low-income, and to receive fewer hours of service than the self-paying clients. The larger regional and national service chains are more likely than the small, privately owned for-profit agency to directly serve the self-paying market, because of the high overhead costs associated with marketing and billing in a retail market. Most small local agencies seek a limited number of contracts with local public or Medicaid home care programs, or sell services under contract to Medicare-certified acute home care agencies such as hospital-based or visiting nurses' agencies. The contractor then deals with the headaches of obtaining client referrals and billing directly or to third parties.

As will be evident, the unskilled care market segment, despite being served by a large number of for-profit companies, is not an attractive source of profits. The managerial and health policy implications of the poor financial performance of providers of these critically needed services will be discussed.

Performance of Publicly-Held For-Profit Home Health Service Companies Providing Primary Services

Ten of the 12 largest publicly-held home care service companies reported specific information in their annual reports, audited financial statements, or prospectuses regarding the performance of their home care businesses. Contained in Table 2 is a list of the largest publicly-held home health companies in all segments. The large service companies provided a mix of skilled and unskilled services. For instance, unskilled service accounted for over half the revenues of Quality Care and Upjohn. Five companies reported payor mix information. For the companies reporting payor mix, private paying clients were from 35% to 62% of all revenue sources; most of this care is unskilled, custodial service. Institutional payors were from 5% to 30% of sources; for these, the home health agency supplied temporary nurses and aides to hospitals and nursing homes. Two companies reported contract sources for 14% to 19% of reve-

nues. These were with state or local public agencies, usually for personal aide and homemaker type services. Such contracts are often awarded to the lowest bidder or on a restricted cost basis that does not recognize profit.

Seven companies revealed detailed income statement information regarding the home health service business, and three others mentioned major strategic moves, as shown in Chart 1, regarding the business. Of the 10, only 3 indicated consistently positive profitability over a multi-year period. In 1 of those 3, profit margins were dropping precipitously; in another, profits were improving as the company shifted from unskilled to high technology services; and in a third, the company was recently indicted for Medicaid fraud and forced to sell all of its operations. Summarized in Table 3 are the profitability data reported by the companies.

Chart 1. Profitability By Nonfinancial Evidence

Company	Source	Evidence
Olsten	1983 Annual Report	"Health care services not yet contributing to bottom line"
Kelly	1986 Annual Report	Company has "realigned its health care division and eliminated all Medicare-certified agencies"
Upjohn	1984 and 1985 Annual Reports	Company is "refocussing" business toward higher technology services, and away from (lower skill) home health services. 1985 home health service revenue growth: 3% over 1984 (after 2 years of double-digit growth)

Adding to the financial constraint on providers' ability to serve the market was a large financial requirement for working capital, experienced by most of the companies mentioned, and caused by receivables commonly in the 50- to 150-day range. This financial data, although incomplete, is consistent, and indicated that "the primary home care service market does not offer reasonable financial stability to providers, not even to those most motivated to achieve strong financial performance, the publicly-held chains.

Discussion

The lack of profits in the home care service market makes sense when who is paying the bill is consid-

Table 3. Evidence Regarding Profitability of Companies with Financial Statements or Prospectuses That Identify Home Health Sector Profitability

Company	1986 Home care revenues	Pretax profit margins as % sales	Payor mix		1985 Days in receivables
Medical Personnel	$230 million	9% in 1984; 7% in 1985; 4% in 1986	1986: Medicare Instit. Private	8% 30% 62%	n/a
Quality Care[a]	$160 million	Losses 1979–81 2–5% Margin 1982–84 Losses 1985–86	1983: Medicare Instit. Contract	31% 7% 19%	50 (1983)
TenderLovingCare	$30 million	Losses to 1% margins; 1983–85	n/a		
StaffBuilders	$48 million	Losses to 2% margins, 1983–84	n/a		94
Superiorcare	$30 million	Losses, 1983–86	1985: Medicare Medicaid Contracts Private Pay Instit. Rentals	14% 19% 14% 47% 5% 1%	76
Continental[b] Health Affiliates	$32 million	9%–16% 1982–84	1985: Medicare & Medicaid Private Pay, other	62% 38%	154
Professional Care Inc.[c]	$56.2 million	Loss, 1986, 3.5%–4.8% margins, 1982–85	1986: Private Pay Public & private insurers	35% 65%	n/a

[a]Recently sold (1987) by Grandmet at a price below what was paid to acquire them in 1985.

[b]Reduced primary (skilled and unskilled) services from 83% to 46% of business. Also sold to a related company in 1982 at above market rates; age of receivables suggests that a large share of revenues reported may never be realized, and profits may be overstated.

[c]Company management indicted in August, 1986 for fraudulent billing and Medicaid compliance reporting in New York: 1987 — forced to sell off all New York assets.

ered. First are the self-payors. A GAO analysis of users of the Medicare acute home health benefit showed that nearly 64% were women, average age 77. Many of them exhaust their Medicare benefits and continue on a custodial private-pay basis. Chronically ill home care clients were more likely to be female and a couple of years older than non-chronically ill clients (GAO, 1986). Although the age cohort 65 to 69 has considerably more income now than in previous generations, elderly people over age 75 often have limited economic resources. Single older persons, usually female, have significantly lower economic status than married older couples: 52% of single persons aged 75 and older had income below $6,000, including annuitized nonhousing assets; only 11.5% of couples over age 75 had similar economic status. Regardless of marital status, 53% of the population over age 75 had cash and in-kind benefits that were only twice the poverty level or lower (Atkins, 1985). This does not leave a lot of discretionary income to pay for custodial home care services out-of-pocket, where the average reported 1982 payment of self-payors was $164 per month (GAO, 1986). Although some broker agencies might prefer to raise the average charge and simply provide fewer hours of care per client, this may not improve profitability. Many of the self-paying referrals come from nonprofit skilled agencies and hospitals, which are likely to be sensitive to the price patients must pay out-of-pocket, especially when they have a choice. This is a competitive market in the sense that there are very low barriers to entry, hence usually a number of agencies competing for business. In addition, fewer hours per patient may require greater marketing and scheduling costs to obtain a sufficient volume of visits to cover overhead costs and maintain a work force.

Medicaid and local public contracting agencies do not improve the situation when they establish cost-based hourly rates for personal care and home health aide services. State rate-setting agencies value worker time at the minimum wage in many states (Liebman, 1986; Surpin & Grimm, 1987). In addition, many states have reduced the number of hours permitted per visit from 4 to 2 or 3 hours; and because travel is usually an excluded (nonreimbursable) expense, workers' effective hourly rates are lowered still further. Finally, states often cap the overhead allowable cost at levels that are based on averages, thus penalizing agencies that attempt to train workers, add fringe benefits, grow fast (high working capital interest charges), or broaden, through marketing efforts, their referral channels. Such cost-cutting measures by states have simply shifted an even greater burden onto the worker (a longer day for the same total pay as before the shortened visit) and reduced the managerial flexibility of the agency that strives to improve its quality or its market position.

The acute medical home care market is not likely to offer significant relief to those providers hoping that insurance coverage might improve their margins. In fact, Medicare has put many acute home care agencies in a precarious financial position. Medicare expenditures for home care grew phenomenally under the dual pressures of rapidly increasing demand and supply. In 1980, Medicare spent $640 million on home health benefits; in 1985, it spent $1.7 billion, an average annual growth rate of 33%. As with any fast-growing line item on a federal budget, home health services attracted a lot of cost-cutting attention. In 1985 the Health Care Financing Agency published new cost limits that ratcheted down the ceilings on allowable costs per visit, reduced the ability of agencies to cross-subsidize among acute visit types (skilled nursing, physical therapy, home health aide), and limited the number and frequency of home health aide visits. In addition, Medicare intermediaries were instructed to impose strict interpretations of medical necessity, such that claim denials increased 133% in 1986 over a pre-prospective payment period in 1983 (Perspectives, 1986). As a result of cost-containment efforts, many certified, acute care agencies are now looking for new revenue sources; a 1986 National Association for Home Care (NAHC) survey of 2100 member agencies found that more than half were trying to reduce their dependence on Medicare (NAHC, 1986). The NAHC report suggested that the agencies would try to "raise revenues through the care of individuals who pay privately." This strategy, as has already been seen, is not likely to bolster the industry's financial condition.

Social Implications

The limited resources available to pay for custodial home care services make it an unattractive segment to enter as a home health provider, or, more important, as an unskilled worker. Hourly wage rates lag behind most unskilled, nonsupervisory positions available, as shown in Table 4. If the industry is not able to attract and maintain a competent work force, quality and access will suffer. There are signs that

Table 4. Average Hourly Earnings, Nonsupervisory Workers in Selected Occupations; United States

	Average Weekly		
	1983	1985	Hours
Homemaker/home aides	$3.20–$7	$4.41	29[a]
	1983	1984	
Services — overall	$7.30	$7.53–7.60	
Retail — overall	5.74	5.87–5.90	
Selected occupations:			
Hotel worker		5.40–5.48	30.2
Laundry, cleaning		5.50–5.60	33.4–34
Beauty Shop		5.40–5.79	27.9–29
Nursing and personal care facilities		5.35–5.41	31.0–31.7
Department store		5.83–6.03	27.8–30.1
Grocery store		7.91–8.00	30.0–31.8
Eating and drinking places		4.31–4.34	25.7–27.2

[a]Feldman and Sapienza, in press.

Source. U.S., Department of Labor, Bureau of Labor Statistics, "Employment Hours, and Earnings, 1909–1984," Vol. II, March 1985. Bulletin 1312–12, pp. 698–784

both quality and worker availability are inadequate for today's needs, and even less adequate for the future (Feldman & Sapienza, in press). Financial woes of providers undermine efforts to improve the quality of care provided by the work force. The physical and emotional strain of the job is considerable and, coupled with the geographic difficulty of supervision, the managerial challenge to provide quality service is not easy to meet. Rapid turnover, poor reliability, low morale, and emotional and physical abuse of patient and worker are common problems in the industry. Increasing demand for personal care service is likely to go unmet unless labor's wages and fringe benefits can be improved. As one provider put it, the poorly paid home care worker is "subsidizing the cost of home care" (Surpin & Grimm, 1987). Alternatively, the elderly patient is receiving lower quality of care due to the financial limits on providers, which prevents them from improving worker conditions. Access can also be affected; in tight job markets, few workers are willing to make such a contribution to society at their own personal expense.

Summary and Recommendations

Home care, particularly that which maintains elderly and disabled people in their homes, is often viewed as the ideal solution to the need for quality and cost-containment in the health delivery system. Keeping people out of nursing homes and hospitals by substituting home care is a goal of Medicare, Medicaid, and privately managed care plans nationwide. Home care benefits, however, appear to be overstated relative to their true costs. Third parties are refusing to pay the price for quality home care, and many elderly people, including the subgroup most at risk of needing home assistance, often cannot afford to pay enough to attract and maintain a quality work force.

In a normal market, the cure for low prices and lack of profits would be for many suppliers to leave the industry, and for the remaining suppliers to bid up prices until attractive wages and profits could be earned. Prices, however, are artificially constrained by third party payors, and also by the limited resources of the typical self-paying client. Given the critical role society expects home care to pay, from health care cost containment to enabling women to remain in the work force, to bringing home workers out of poverty, society should be compelled to come up with better ways to both pay for home care and provide the services.

Innovative action is needed at federal, state, and private sector levels. The federal role should be that of facilitator of a private sector response, similar to the HMO program of the 1970s. For instance, the Department of Health and Human Services (DHHS) could offer support to the Life Care at Home (LCAH) model under development at Brandeis (Wallack & Tell, 1986), which proposes a managed long-term care insurance program that is focused on maintaining elderly people in their homes. The concept, which has not yet been site-demonstrated, involves marketing managed long-term care insurance for a range of services from the home to the institution and care levels would be determined by case managers. It is similar to the social health maintenance organization (S/HMO), which is currently being demonstrated at four sites, except that acute care services traditionally covered by Medicare are included in the S/HMO model and long-term care benefits are more limited in the S/HMO than would be possible in the LCAH model. Both face a major difficulty in marketing to the healthy elderly population, which does not yet perceive the need to purchase such insurance. The Brandeis researchers have indicated, however, that 32% to 46% of the elderly nonmarried over 75 population could afford to purchase LCAH policies; up to 53% of married elderly people over 65 could afford an LCAH policy. This is probably overstated due to the underestimation of the cost of quality home care. The concept, however, addresses access, cost-containment, and alternative delivery system development in a comprehensive yet flexible, community-based program. Federal assistance would be valuable in educating elderly people to the need for such insurance, because a major deterrent to the marketing of long-term care policies is a false belief that Medicare covers these expenses. The federal government could also offer start-up capital and managerial and financial expertise to potential providers. In addition, DHHS could, either alone or with the states, offer to subsidize low-income elderly people wanting to buy into an LCAH program.

State and local programs struggling to maximize the number of home health clients served must recognize that payment which is low and slow is a major deterrent to service quality and adequate worker supply. In Massachusetts, where unemployment is very low, there are simply not enough workers willing to take a more stressful job to earn wages below those offered by fast food chains. Already incidents of elderly people left without assistance in the acute home care market are making major news stories (Loth, 1987). The likely implications for the custodial care market are that more and more elderly people are failing to get out of bed, dress themselves, eat, bathe, and take their medication properly, due to the lack of formal or informal assistance. The cumulative effect may take longer to reach the public eye, but is even more alarming than what happens to unaided elderly people discharged from hospitals early. Meanwhile, Massachusetts pays between 1 and 2 dollars per hour more than other states with custodial home care programs. Funding higher wages and faster payment should become a priority, even at the expense of lower volume; if no one is willing to do the work, volume of service provided will drop even lower.

Finally, the private sector should play a leading role in developing better financing and delivery systems for both medical and custodial home care. Employers are affected not only by the cost and quality of retiree health care, much of which they must finance, but also must worry about employee productivity. A recent survey (Lee, 1987) of Connecti-

cut-based companies showed that between 25% to 33% of employees over age 40 were care givers to elderly parents. Many such employees suffer from stress, depression, and illness which affect their performance at work. Just as the care of employee children has finally captured corporate attention over the past few years, the care of parents will inevitably be a high priority for the labor force in the near future. Employers are free to innovate in the design of benefits and contracts for quality services which suit the local environment of their employees. A community-based funding and delivery model for long-term home care that employers may find appealing is the On Lok program which, for a capitated monthly fee, manages the entire range of both medical and custodial needs of a frail elderly, institutionally-eligible population in San Francisco. A multidisciplinary team is responsible for managing the elderly group, directly providing housing, a day health center, transportation, home health and homemaker and chore care, a full range of medical specialists, and contracting for acute and intermediate institutional and ambulatory medical care. Extensive evaluation of the program has shown it to be less costly than the traditional acute and long-term care non-system, and more effective at maintaining the health and function of a disabled population. The On Lok project, however, is unique in part because it has evolved over a long period of time and survived despite the vagaries of federal and state demonstration financing. The demonstration concept is described by one set of authors as self-defeating because "the idea really is to develop a new system, assess it and then stop it, regardless of its impact" (Ansar & Zawadski, 1983). A much-needed longer-term outlook is more likely to be developed with corporate and private group sponsorship than by federal and state agencies.

These recommendations would improve both the financing and the delivery of home care services in the broader context of a coordinated home care system. These organized private insurance and delivery systems differ significantly from the traditional home health delivery system in their funding, integration, coordination, and greater reliance upon non-medical home care support. In that context, unskilled home care workers, rather than being underpaid per diem contract workers in a brokered system, often supervised by nurses employed by another agency, could instead become valued members of an interdisciplinary team. Adequate pay scales and working conditions for workers would be of much greater importance to managers at risk for the financial outcome of the care delivered. Thus, the first step toward improving the quality and availability of unskilled home care services is to improve the financing and the organization of home care. The resulting managerial flexibility will result in better social outcomes for home care workers, elderly patients, and their families.

All the advances in modern medicine that extend life into the golden years will seem a cruel joke if society cannot improve upon its current home care delivery system. Pluralistic approaches by informed and concerned purchasers must occur to avert the crisis already descending upon the older elderly population.

References

Ansar, M. L., & Zawadski R. I. (1983). On Lok CCODA: A consolidated model. *Home Health Services Quarterly, 4*, 147–170.

Atkins, G. L. (1985). The economic status of the old and old old. *Milbank Memorial Fund Quarterly, 63*, 395–419.

Feldman, P. H., & Sapienza, A. M. (in press). Quality of work life in the home care industry. In A. S. Sethi & R. S. Schuler (Eds.), *Human resource management in the health care sector: Guide for administrators and professionals*. Toronto: Greenwood Press.

FIND/SVP. (1985). The market for home health products and services. *Health Industry Today*, February, 46–51.

FIND/SVP. (1985). *Home health care products and services*. Market Report. Unpublished report.

General Accounting Office. (1986). *Medicare: Need to strengthen home health care payment controls and address unmet needs*. Report to the Chairman, Special Committee on Aging, United States Senate. GAO/HRD-87-9.

Kavesh, W. N. (1986). Home care: Process, outcome, cost. *Annual Review of Gerontology and Geriatrics*. New York: Springer Publishing Co.

Lee, E. (1987). Firms begin support for workers who look after elderly relatives. *Wall Street Journal*, July 6, p. 13.

Levit, K. P., Lazenby, H., Waldo, D. R., & Davidoff, L. (1985). National health expenditures, 1985. *Health Care Financing Review, 7*, 1–35.

Liebman, J. (1986). Rate setting for home care services in Massachusetts. Report prepared for the Harvard University-Ford Foundation Home Care Project. President and Fellows of Harvard College. Unpublished report.

Liu, K., Manton, K. G., & Liu, B. M. (1985). Home care expenses for the disabled elderly. *Health Care Financing Review, 7*, 51–58.

Loth, R. (1987). The no-care zone. *Boston Globe Magazine*, May 31, pp. 14–16., 56–61.

Medical and Healthcare Marketplace Guide. (1986). *The International Biomedical Information Service, Inc.* Miami, Florida.

National Association for Home Care. (1986). *The attempted dismantling of the Medicare home health benefit*. Washington, DC.

Perspectives. (1986). Hard times for home health, August 18, 1984. Supplement to *Medicine and Health*. Washington, DC: McGraw Hill.

Scanlon, W. J., & Feder, J. (1984). The long-term care market place — an overview. *Healthcare Financial Management, 14*, 18–36.

Stephenson, P. R., & Cron, W. L. (1986). *HIDA. Financial Performance Survey for Homecare/DME Dealers*. Unpublished report.

Surpin, R., & Grimm, F. (1987). The plight of home health care workers. *New York Newsday*, Tuesday, June 9.

Wallach, S. S., & Tell, E. J. (1986). New approaches to the finance and delivery of health care to the elderly. In *Health Care Cost Management*. Brookfield, WI: International Foundation of Employee Benefit Plans.

A. Numbers for Health Information

• ALZHEIMER'S DISEASE

Alzheimer's Disease and Related Disorders Association

70 East Lake St, Suite 600
Chicago, IL 60601

Offers information on publications about Alzheimer's disease and related disorders. Referrals to local chapters and support groups.

• ARTHRITIS

Arthritis Foundation Support Groups

1314 Spring Street
Altanta, GA 30309

In 72 chapters nationwide, people with arthritis, their families and friends receive education and support and participate in social activities. The organization publishes a quarterly newsletter.

• BLOOD PRESSURE

High Blood Pressure Information Center

120/80 National Institutes of Health
Bethesda, MD 20892

Provides information relating to research on the causes, methods of diagnosis, and treatment of heart, blood vessel, and blood diseases.

• CANCER

AMC Cancer Information

800/525-3777

Provides information on cancer's causes, prevention, methods of detection, diagnosis, rehabilitation, and treatment. Gives information on treatment facilities and counseling services. A service of AMC Cancer Research Center, Denver, CO

Skin Cancer Foundation

245 Fifth Avenue, Suite 2402
New York, NY 10016
212/725-5176

Health education materials on the importance of early detection and treatment of skin cancer.

Family Cancer Support Network

c/o Self-Help Center
1600 Dodge Avenue, Suite S-122
Evanston, IL 60201

The families of people with life-threatening illnesses receive support and learn to help themselves. A quarterly newsletter is published, and group development guidelines are available.

Cancer Information Service
National Cancer Institute (NCI)

9000 Rockville Pike
Building 31, Room 10A18
Bethesda, MD 20892
800/4-CANCER

NCI staff answer questions and offer publications on prevention, detection, causes and treatment of cancer.

We Can Do!

P.O. Box 723
Arcadia, CA 91006

Cancer patients receive education and support through weekly group meetings and a telephone network. Chapter development guidelines are available.

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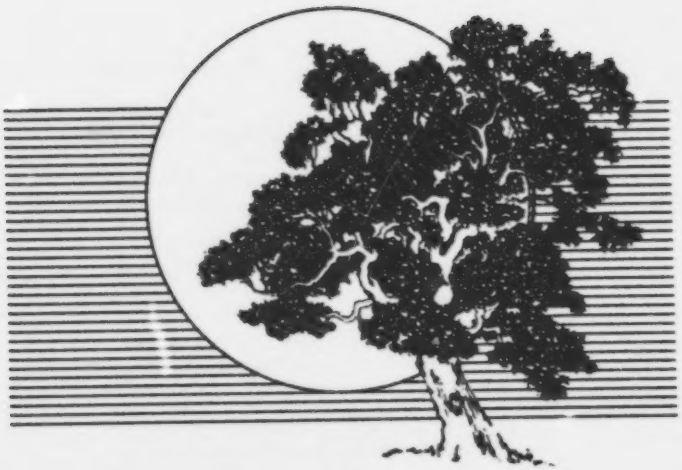

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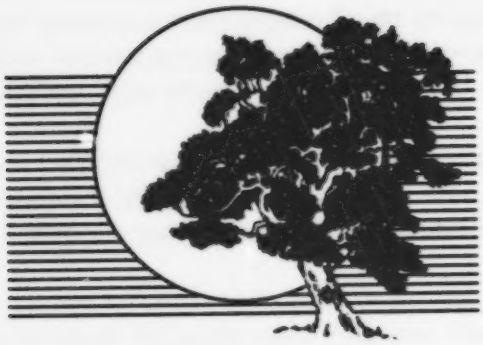

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The Advisory Panel, chaired by Dr. Phil Weiler, assisted in the design of the needs assessment, as well as the selection of topics for inclusion in the curriculum. Several of the members of the Advisory Panel served as content experts for the review of draft materials. Their willingness to share their insights, knowledge, and time guided the evolution of this project and contributed a keen sense of direction to the effort.

In addition, we are appreciative of the many professionals and staff in public health departments, as well as aging-network organization and agencies, whose observations during the needs assessment phase of this project helped us refine an operational strategy for curriculum development.

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The magnitude of a project of this nature requires the energies and talents of many individuals oriented toward a common goal. The Technical Resources, Inc. (TRI) project staff contributed the combined expertise of diverse disciplines to generate a comprehensive, practical training vehicle. As co-authors of several modules, Ms. Rosalind P. Brannigan and Mr. Peter J. Pizzolongo provided high-quality substantive content, creative approaches, and unflagging senses of humor integral to both the process and the product.

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Joel A. Todd
Project Director

Shelli B. Rossman
Project Manager

PREFACE

The Geriatric Training Curriculum for Public Health Professionals was developed by Technical Resources, Inc. (TRI) for the Bureau of Health Professions, Health Resources and Services Administration, Public Health Service, U.S. Department of Health and Human Services. The curriculum has been designed for mid- and senior-level practicing public health professionals, primarily employed in state and local Departments of Public Health. The training materials have been designed to permit these professionals, as well as representatives of aging-related networks, to broaden their understanding of aging and the needs of the older adult so that they may serve as geriatric/gerontologic resources in their communities.

It is the intent of the Bureau and TRI that training sessions conducted with these materials be facilitated by persons who are experienced trainers, as well as content experts in the areas for which they provide training. The curriculum is fully self-contained. It comprises all the written materials and instructions necessary to prepare and conduct this training. In developing these materials, we have anticipated that facilitators will want to present updated information to remain current in the field; we have included suggestions for enhancing the topical relevance of the training pieces, together with suggestions for where to obtain state-of-the-art data.

CURRICULUM MATERIALS

The Geriatric Training Curriculum is comprised of five modules:

- Aging: Demography, Biology, and Epidemiology.
- Psychosocial Issues Affecting Older Adults and Their Caregivers.
- Financing the Health Care of Older Adults.
- Continuum of Care Services for Older Adults.
- Health Promotion for Older Adults.

Each module can be presented independent of the others. However, if the curriculum is utilized in its entirety, it is recommended that the aforementioned order be preserved to permit trainees to incorporate a foundation in concepts basic to an understanding of aging, as well to clarify

their own values, prior to examining the complexities of financing, service delivery, and health promotion/disease prevention issues.

All of the modules have been organized utilizing a seven-section format, as detailed below:

- **Introduction** -- This section presents a brief narrative describing the purpose of the module, together with information for the instructor, including a general description of the organization of the remainder of the module and some generic recommendations for training.

- **Overview** -- This section presents a schematic outline of each training topic, including time required for the didactic session and any interactive exercises, training objectives, listings of relevant overheads and handouts, and indication of special preparation requirements, if any. This section concludes with a bibliography that constitutes the literature referenced within the module.

- **Training Content** -- Presented in two-column format, this section contains the substantive content that serves as a training script, together with strategic guidance for conducting training activities, such as interactive exercises.

- **Overheads** -- This section contains hard copies from which transparencies or slides can be produced. In addition, this section may be reproduced for distribution to trainees as an aid in note taking.

- **Handouts** -- This section contains master copies of the handouts, which have been developed to support and enrich the training experience. Typically, these materials either (i) present current data or (ii) form the basis for interactive training activities.

- **Resources** -- This section presents pertinent information on relevant Federal agencies, private organizations, and media resources from which up-to-date information can be obtained. Facilitators should contact appropriate resources to update the training content for each session, as necessary. The section may also be reproduced in hard copy for distribution to training participants.

- **Readings** -- Each module contains relevant readings that should be reviewed by the facilitator in advance of training. Such materials may be duplicated for distribution to training participants, prior to, or at the conclusion of, the training session.

As a result of a needs assessment that was performed prior to undertaking the design of this material, the curriculum developers were cognizant of public health professionals' interests in the geriatric arena, as well as their concerns that training be pragmatic and practicable, given existing and projected constraints on personnel, time, budget lines, and other crucial resource considerations. The use of these materials will permit the skilled trainer to meet the needs of public health department personnel for aging-related information through pre- or in-service training in any or all

of the topics subsumed by this curriculum. TRI has employed a modular approach to facilitate training sessions of short duration that may be (i) conducted as a series of brief sessions, such as lunchtime seminars, over a period of time, or (ii) merged together to form half- or full-day intensive training workshops. Further, since these materials represent a fully-contained training package, this curriculum can be presented at minimal cost to the sponsoring organization, but at great benefit to public health professionals, who have expressed interest in the selected issues.

DEVELOPMENT OF THE CURRICULUM

The TRI project staff began the research for the curriculum during the Fall of 1987. Early project activities included:

A. Project Start-Up

- Discussions with Ronald B. Merrill, M.H.A., Government Project Officer, to refine the strategy that would serve as the blueprint for action and day-to-day progress. A six-pronged strategy for analysis of geriatric education resources was implemented as detailed below.

B. Phase One: Strategy

- Educational Efforts of Professional Associations and Organizations. Discussions were held with associations that address issues concerning the elderly to ascertain the extent and nature of programs under their domain that could be applied to satisfy the training needs of public health professionals. The following organizations were contacted:

  - American Association of Retired Persons (AARP)
  - American Medical Association (AMA)
  - American Geriatric Society (AGS)
  - Association for Gerontology in Higher Education (AGHE)
  - American Bar Association (ABA)
  - National Council on Aging (NCOA)
  - Gerontological Society of America (GSA)
  - National Senior Citizens Law Center
  - American Public Health Association (APHA)
  - Association of Schools of Public Health
  - Association of State and Territorial Health Officials (ASTHO)
  - National Association of County Health Officials (NACHO)
  - U.S. Conference of Local Health Officers (USCLO).

- Geriatric/Gerontologic Curricula in Schools of Public Health. An assessment of geriatric/gerontologic curricula in schools of public health was undertaken. In 1985, the Association of the Schools of Public Health (ASPH) compiled a comprehensive list of geriatric and gerontologic courses offered at all twenty-three school of public health in the U.S. TRI used this report, *Gerontology Programs and Curricula in U.S. Schools of Public*

Health (Judith H. Magee, June 1985) to analyze training opportunities and content areas offered to students of public health. TRI randomly contacted approximately half of these institutions if they had indicated plans for curriculum expansion during the 1985 ASPH Survey.

Content analysis of the various curricula found that many of the schools of public health have developed discrete courses devoted to health care of the aged, although some schools merely incorporate gerontologic/geriatric material into existing courses.

- Geriatric Education Center Resources. Analysis of the training offered by the Bureau of Health Professions-funded Geriatric Education Centers (GECs), nationwide, permitted TRI to identify a number of existing curriculum modules and/or bibiographic resource listings that were obtained and assessed for relevance to the target training audience. In all, twenty-five curriculum modules were subjected to content analysis, focusing on the target audience for the information, scope of the course offering, topics subsumed, and training techniques employed.

- Review of Literature. Geriatric/gerontologic and education/training literature pertinent to public health professionals was reviewed. The TRI staff performed an exhaustive review of the following journals from 1985 to the present:

  - *American Journal of Public Health*
  - *Geriatrics*
  - *Gerontology and Geriatrics Education*
  - *Health Education*
  - *Health Education Quarterly*
  - *The Gerontologist.*

  In addition, numerous monographs and relevant articles from other health-related journals were also reviewed. A working bibliography of materials reviewed at that time has been included at the end of this section.

- Preliminary Needs Assessment. TRI contacted public health professionals whose agencies serve elderly populations. State, regional, county, and urban health department personnel from jurisdictions in California, Virginia, New York City, and the District of Columbia provided information on their current levels of services, as well as the training needs of departmental staff.

- Staff Development Activities. TRI project staff attended several conferences and symposia, including:

  - The Gerontological Society of America Annual Meeting
  - The Ohio Valley Appalachia Region (OVAR) One-Week Summer Intensive
  - The Amerian Society on Agency Annual Conference.

- Advisory Panel. An advisory group, comprised of national experts representing the professions of public health, medicine, epidemiology, ethics and law, health education, health administration, and geriatrics/gerontology, was empaneled. The Advisory Panel members were drawn from universities, public health departments at state and local levels, Geriatric Education Centers, and relevant associations. Representatives of appropriate Federal agencies served as resource representatives, augmenting the considerable expertise

of the Advisory Panel membership. A two-day meeting was convened to focus curriculum development through selection of topics for inclusion in the training, and discussion of recommended training resources and approaches. The meeting was attended by:

Panel Members

- Phil Weiler, M.D., M.P.H., Panel Chairperson
  Department of Community Health
  School of Medicine
  University of California at Davis

- John Arradondo, M.D., M.P.H., Director
  Department of Health and Human Services
  Houston, Texas

- Robert Butler, M.D., Chairman
  Ritter Department of Geriatrics and Adult Development
  Mt. Sinai School of Medicine

- William Carter, Ph.D.
  University of Washington
  School of Public Health

- J. Richard Connelly, Ph.D.
  Director of Gerontology
  University of Utah

- Rose Dobrof, D.S.W.
  Hunter/Mt. Sinai Geriatric Education Center
  Brookdale Center on Aging of Hunter College, CUNY

- Mary Ellis, R.Ph., M.P.A.
  Commission of Health
  State of Iowa

- Daniel Friedman, Ph.D.
  Director, Health Statistics and Research
  Massachusetts Department of Public Health

- Pearl German, Ph.D.
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  Johns Hopkins University
  School of Hygiene and Public Health

- Tom Hickey, Ph.D.
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  School of Public Health
  University of Michigan

- Jane Johnston
  Director of Training
  Human Resources
  American Association of Retired Persons

- Robert Kane, M.D., Dean
  School of Public Health
  University of Minnesota

- Marshall B. Kapp, J.D., M.P.H.
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- Bernice Parlak, M.S.W.
  Geriatric Education Center of Pennsylvania
  Temple University Institute on Aging

Resource Representatives

- Ronald B. Merrill, M.H.A.
  Public Health Service Project Officer
  Division of Associated and Dental Health Professions

- William D. Clark, M.A.
  Social Science Research Analyst
  Division of Long-Term Care Experimentation
  Office of Research Demonstrationn (ORD)/HCFA

- Marsha Goodwin, R.N., M.S.N., M.A.
  Chief, Education and Training for Geriatrics and Extended Care
  Veterans Administration

- Evan Hadley, M.D.
  Chief, Geriatrics Branch
  National Institute on Aging

- William Koenig, M.P.A.
  Deputy Chief
  Associate Health Professions Branch
  Division of Associated and Dental Health Professions

- Thomas L. Louden, D.D.S., Director
  Division of Associated and Dental Health Professions

- Marsha Ory, Ph.D.
  Chief, Social Science Research on Aging
  National Institute of Aging

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- Shelli B. Rossman, M.A.
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- Rosalind Brannigan, M.P.H.
  Research Associate

- Peter J. Pizzolongo, M.S.
  Senior Associate

C. **Phase Two: Targeted Needs Assessment**

- Following the Advisory Panel meeting, TRI designed and implemented a strategy for a needs assessment and a discussion guide.

- TRI staff conducted telephone conversations at the state and county, as well as city, level with staff of public health departments in 11 states and the District of Columbia. Contacts included health commissioners; epidemiologists; health department training specialists; physicians and nurses operating geriatric clinics; and chiefs of such administrative offices as long-term care, health planning and development, health promotion, community and rural health, and chronic diseases. In addition, site visits were made to several public health departments at both the state and local levels in Maryland to meet with cognizant personnel and actually obtain a first-hand exposure to daily routines. TRI staff also spoke with representatives of Offices on Aging at both state and local levels, by phone and in person, to determine their perspectives on the geriatric training needs of public health department personnel. Needs assessment respondents described a number of activities undertaken by public health, including assessment and treatment services provided by health centers and specialized clinics, adolescent pregnancy prevention programs, home health programs, geriatric programs, and mental health and addiction programs.

- In general, respondents who had oversight responsibilities for on-going geriatric programs/services were most able to pinpoint training needs or issues they felt required further attention. Training areas identified included information about effective health promotion programs, Medicare/Medicaid/Catastrophic care coverage, local linkages and continuum of care issues, nutrition, pharmacologic issues, and health education for fitness/exercise programs.

D. **Phase Three: Curriculum Design**

- TRI, in consultation with the Government Project Officer, developed a curriculum outline that blended the topics suggested by the Advisory Panel with those that emerged as a result of the needs assessment. Particular attention was paid to selecting issues that would not only attract professionals in public health departments, but also those in related agencies, such as Offices on Aging.

- The first draft of the Geriatric Training Curriculum was pilot tested in July 1989 in a three-day-intensive Geriatric Training Institute under the auspices of the South Texas Geriatric Education Center in San Antonio, Texas. Eighteen participants, representing the Texas Department of Public Health at state and regional levels or from in-state area agencies on aging, attended the pilot test.

- Two activities were incorporated in the pilot strategy to enhance curriculum development:

  - The modules were implemented in an actual training setting by facilitators who had not been involved in the curriculum development process. This approach was used to obtain an objective assessment of whether the packages were truly self-contained and user friendly. The facilitators, who are listed below, were given the opportunity to critique content and form of all materials.

  - Pilot test participants completed evaluations of each training session. A sample of the evaluation instrument is presented in Appendix A.

Geriatric Training Institute Faculty

-- Michele J. Saunders, D.M.D., M.S., M.P.H.
Director, South Texas Geriataric Education Center

Sessions: Demographics, Biology of Aging, Continuum of Care, Health Promotion

-- Robert Oseasohn, M.D.
Professor and Associate Dean
School of Public Health at Houston
MPH Program at San Antonio

Session: Epidemiology

-- Mary Ann Matteson, Ph.D.
Assistant Professor
School of Nursing
University of Texas Health Science Center at San Antonio

Session: Psychosocial

-- David Warner, Ph.D.
LBJ School of Public Affairs

Session: Financing

-- Ruth A. Freiburger, M.A.
Education Specialist
South Texas Geriatric Education Center

Session: Health Promotion

-- Carolyn E. Marshall, M.P.H.
Community Education Coordinator
South Texas Geriatric Education Center

Session: Health Promotion

-- Myron Shank, M.D.
Division of Diabetes
Department of Medicine

Session: Health Promotion

- Based upon the critiques of the facilitators, the evaluations of the participants, and the observations of the TRI project staff and Government Project Officer that were recorded during the pilot test, the initial draft curriculum was revised and strengthened.

- Subsequently, the modules were reviewed by Advisory Panel members, whose critiques, together with that of the Government Project Officer, during late Summer, 1989, guided the final revision of all materials.

TIPS FOR FACILITATORS

To ensure effective training sessions designed to meet the needs of participants, facilitators should address the following issues.

Sensitivity of Language

The language used to develop programs for older adults is an important part of helping individuals empower themselves to deal with the aging process. Language is a symbol of sensitivity to a group's strengths, needs, and interests. Therefore, facilitators must select words carefully when conducting training.

Project staff have chosen the words "Black" and "Hispanic" to identify members of these racial/ethnic groups (consistent with the terminology presented in National Center for Health Statistics data and with the Centers for Disease Control classifications). However, identifiers most appropriate for the region in which training is conducted (e.g., "African-American," "Latino," "Chicano") should be used during the training session. Facilitators should contact racial/ethnic group leaders from the trainees' jurisdiction(s) prior to presenting the workshops to ensure that the appropriate identifiers are used.

Similarly, the term "elderly" has a long history of referring to adults, aged 65 and older. More recently, demographic shifts have underscored the heterogeneity of this group, leading to the recognition that at least two sub-sets exist within the 65+ cohort: the "young-old" and the "old-old" (who typically are frailer individuals). Many of the young-old are wary of the designation of "elderly" since they perceive it as conferring a status of infirmity to which they do not wish to lay claim. "Elderly" is still linguistically viable, but one should be alert to an audience's comfort and responsiveness when using terms that may be value laden.

In general, it is important not to stereotype individuals when discussing aging-related issues. Urban dwellers are not necessarily more socially conscious, modern, and formally educated than rural dwellers. Individuals who fall within the same age group may not share anything else in common except chronological age. Training sessions can, and should, be strengthened by discussing stereotypes and prejudices with representatives of appropriate groups, at the local level. Information about the manifestations of such attitudes and behaviors in the trainees' jurisdiction(s) can be integrated into the training content where appropriate.

Needs Assessment

Prior to scheduling and conducting training sessions, facilitators should assess the knowledge, skill, and attitude training needs of participants. Using surveys, pre-tests, and/or interviews, the specific needs of participants can be identified. Facilitators can then schedule sessions appropriately and modify training outlines, as necessary, to match the strengths, interests, and needs of the trainees.

An advantage of the modular approach of this Geriatric Training Curriculum is that it not only contains suggestions for optional activities, but also has an inherent flexibility that permits facilitators to add to, delete from, or restructure the existing material to tailor it to the specific needs of a select group.

Class Size

This curriculum was designed to provide for interactive training. Therefore, a class size of 15 to 30 participants would be optimal.

Training Strategies

- Lecture/Discussion -- Facilitators should familiarize themselves sufficiently with the training outline scripts to avoid reading from the script during the training session. Add anecdotes pertinent to the trainees' jurisdiction(s) to strengthen these segments; the inclusion of humor in the form of cartoons or tasteful jokes is not only a good icebreaker, but also creates a positive climate for training. If time permits, encourage participants to ask questions during the lecture segments, or respond to questions at the conclusion of these segments.

- Overheads -- Facilitators should talk from the overheads and not read them verbatim. The right column in the training outline provides information relevant to each overhead. The use of a pointer during discussion of charts and graphs can greatly enhance the impact of the data.

- Brainstorming -- This training strategy allows participants to identify many responses to a question (e.g., "What do you think about the Catastrophic Care Coverage Act of 1988?"). Brainstorming is an appropriate strategy when a question has many "right answers" or possibly no "right answers" (an open-ended question). It is not appropriate for questions that have only one or a few "right answers." Facilitators should ask participants to respond to brainstorming questions without commenting negatively on the relative merits of each response; although information that is factually incorrect should be accurately restated so as to clarify misinformation and prevent its repetition.

- Values Clarification -- This strategy is used in the Psychosocial Issues module. Its purpose is to help trainees recognize how their own attitudes can influence decision making and planning, as well as treatment and care. This type of strategy works best when used in training situations of low threat, in which an individual can shift his or her attitudes without feeling defensive or threatened. Facilitators should approach this activity as an "off-the-record" discussion in as "judgment-free" an atmosphere as possible. The training outline for the Psychosocial Issues module includes objective information for facilitators to share with trainees at the conclusion of the values clarification activity.

- Group Discussions -- Most of the modules include group discussion activities. These activities are designed to tailor the lecture information to the needs in the trainees' jurisdiction(s). Each discussion activity is based on a series of written questions to which participants respond individually and/or within their groups. Some of the activities lead to a "debriefing" report from each group. The training outline provides questions for facilitating large group discussions at the conclusion of the small group activities.

The Geriatric Training Curriculum for Public Health Professionals can be a useful tool for increasing knowledge of geriatric/gerontologic issues and for developing the competencies to deal with older adults. The Bureau of Health Professions and TRI hope that training providers can incorporate this curriculum with other quality programs.

BIBLIOGRAPHY

1. Abramowitz, M. "Age and Economics--Should Expensive Procedures Be Limited on the Basis of Age?" *Washington Post*, January 26, 1988.

2. Ahmed, S.M., Kraft, I.A., Porter, D.M. "Attitudes of Different Professional Groups Toward Geriatric Patients," *Gerontology and Geriatrics Education*, 6(4):77-86, Summer 1986.

3. The Alzheimers's Disease Center and National Institute on Aging. *Q&A: Alzheimer's Disease*, NIH Pub. No. 85-1646, May 1985.

4. American Association of Retired Persons. *A Profile of Older Americans: 1985*, Washington, DC, 1985.

5. Applebaum, R.A. and Wilson, N.L. "Training Needs for Providing Case Management for the Long Term Care Client: Lessons from the National Channeling Demonstration," *The Gerontologist*, 28(2):172-176, 1988.

6. Arie, T.H.D. "Education in the Care of the Elderly," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):492-500, July-August 1985.

7. Austin, D.R. "Attitudes Toward Old Age: A Hierarchical Study," *The Gerontologist*, 25(4):431-434, 1985.

8. Author Unknown. "Long Term Care Program Promised," *The Nation's Health*, March 1988.

9. Author Unknown. "Medicare's Fiscal Dilemma," *The Urban Institute Policy and Research Report*, 18(1), Winter 1988.

10. Author Unknown. "State Health Reports," *The Nation's Health*, p. 14, January 1988.

11. Bass, S.A. "Symposium on Tomorrow's Able Elderly: Implications for Policy and Practice - Introduction," *The Gerontologist*, 27(4):403-404, 1987.

12. Bender, C. and Hart, J.P. "A Model for Health Promotion for the Rural Elderly," *The Gerontologist*, 27(2):139-142, 1987.

13. Berk, M.L. and Wilensky, G.R. "Health Care of the Poor Elderly: Supplementing Medicare," *The Gerontologist*, 25(3):311-314, 1985.

14. Berkman, L.F. "The Assessment of Social Networks and Social Support in the Elderly," *Journal of the American Geriatrics Society*, 31(12):743-749, December 1983.

15. Berman, S., Delancey, N., Gallagher, D., Atkins, P., and Graeber, M.P. "Respite Care: A Partnership Between a Veterans Administration Nursing Home and Families to Care for Frail Elders at Home," *The Gerontologist*, 27(5):581-584, 1987.

16. Berry, G.L., Smyer, M.A., and Lago, D. "State-Level Pharmaceutical Assistance Programs for the Elderly: A National Survey," *American Journal of Public Health*, 78(2), February 1988.

17. Besdine, R. "The Educational Utility of Comprehensive Functional Assessment in the Elderly," *Journal of the American Geriatrics Society*, 31(11):651-656, November 1983.

18. Besdine, R.W. *Observations on Geriatric Medicine*, DHEW Pub. No. (NIH) 79-162, National Institute on Aging, 1979.

19. Binstock, R.H. "Title III of the Older Americans Act: An Analysis and Proposal for the 1987 Reauthorization," *The Gerontologist*, 27(3):259-265, 1987.

20. Blazer, D. "Home Health Care: House Calls Revisited," *American Journal of Public Health*, 78(3):238-239, March 1988.

21. Blumenfield, S. "Gerontology Journal Club: A Continuing Education Modality for Experienced Social Workers in an Acute Hospital Setting," *The Gerontologist*, 25(1):11-14, 1985.

22. Branch, L.G., Wetle, T.L, Scherr, P.A., Cook, N.R., et al. "A Prospective Study of Incident Comprehensive Medical Home Care Use Among the Elderly," *American Journal of Public Health*, 78(3):255, March 1988.

23. Brody, S.J. "Strategic Planning: The Catastrophic Approach," *The Gerontologist*, 27(2):131-138, 1987.

24. Buchanan, J. and Santos, J.F. "A Report from an Interdisciplinary Conference on Mental Health and Aging," *Gerontology and Geriatrics Education*, 7(1):1-3, Fall 1986.

25. Burroughs, P., Young, J.E., Silverman, M., Ricci, E., Shore, B.K., Lago, D. "The Development and Evaluation of Training Standards for the Aging Network and Academia: II Summary of Project Products and the Process of Their Validation," *Gerontology and Geriatrics Education*, 7(2):47-54, Winter 1986.

26. Calkins, E. "Residency Training in Geriatric Medicine - 1984," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):534-, July-August 1985.

27. Capitman, J.A. "Community-Based Long-Term Care Models, Target Groups and Impacts on Service Use," *The Gerontologist*, 26(4):389-397, 1986.

28. Capitman, J.A., Arling, G., and Bowling, Cindi. "Public and Private Costs of Long-Term Care for Nursing Home Pre-Admission Screening Program Participants," *The Gerontologist*, 27(6):780-787, 1987.

29. Capitman, J.A., Haskins, B., and Bernstein, J. "Case Management Approaches in Coordinated Community-Oriented Long-Term Care Demonstrations," *The Gerontologist*, 26(4):398-404, 1986.

30. Castro, J. "Critical Condition," *Time*, p. 42, February 1, 1988.

31. Champlin, L. "Long-Term Care: Protecting the Elderly From Going Broke," *Geriatrics*, 43(4):96-102, 1988.

32. Chandler, J.T., Rachal, J.R., and Kazelskis, R. "Attitudes of Long-Term Care Nursing Personnel Toward the Elderly," *The Gerontologist*, 26(5):551-555, 1986.

33. Chappell, N.L. and Blandford, A.A. "Adult Day Care and Medical and Hospital Claims," *The Gerontologist*, 27(6):773-779, 1987.

34. Chen, Y-P. "Making Assets Out of Tomorrow's Elderly," *The Gerontologist*, 24(4):410-416, 1987.

35. Cherry, D.L. and Rafkins, M.J. "Adapting Day Care to the Needs of Adults with Dementia," *The Gerontologist*, 28(1):116-120, 1988.

36. Clark, P.G. "The Social Allocation of Health Care Resources: Ethical Dilemmas in Age-Group Competition," *The Gerontologist*, 25(2):119-125, 1985.

37. Cohen, M.A., Tell, E.J., Greenberg, J.N., and Wallack, S.S. "The Financial Capacity of the Elderly to Insure for Long-Term Care," *The Gerontologist*, 27(4):494-502, 1987.

38. Committee on Leadership for Academic Geriatric Medicine. "Report of the Institute of Medicine: Academic Geriatrics for the Year 2000," *Journal of the American Geriatrics Society*, 35(8):773-791, August 1987.

39. Cook, F.L. "A Symposium on Measuring Hardship Among Older Americans During the First Four Years of the Reagan Administration - Introduction," *The Gerontologist*, 26(1):25-26, 1986.

40. Cook, F.L. and Kramek, L.M. "Measuring Economic Hardship Among Older Americans," *The Gerontologist*, 26(1):38-47, 1986.

41. Doka, K.J. and Smith-Fraser, D. "The Goals of Master-level Gerontological Students: An Institutional Study," *Gerontology and Geriatrics*, 7(1)75-83, Fall 1986.

42. Doress, P.B. and Siegal, D.L. *Ourselves. Growing Older. Women Aging with Knowledge and Power*, Simon and Schuster, New York, 1987.

44. Drinka, T. and Ray, R.O. "An Investigation of Power in an Interdisciplinary Health Care Team," *Gerontology and Geriatrics Education*, 6(3):43-53, Spring 1986.

45. Eisdorfer, C. "Educating for Caring," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):573-579, July-August 1985.

46. Elster, S.K. "Introductory Remarks," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):469-470, July-August 1985.

47. Falcone, A. "Comprehensive Functional Assessment as an Administrative Tool," *Journal of the American Geriatrics Society*, 31(11):642-650, November 1983.

48. Famiglietti, R.A. "Meeting an Emergent Need in Curriculum Development: Aging and Developmental Disabilities," *Gerontology and Geriatrics Education*, 6(1):25-35, Fall 1985.

49. Fanelli, M.T. and Abernethy, M.M. "A Nutritional Questionnaire for Older Adults," *The Gerontologist*, 26(2):192-197, 1986.

50. Ford, A.B. "Looking After the Old Folks," *American Journal of Public Health*, 77(12):1499-1510, December 1987.

51. Freedman, M.I. "Medical Education in Geriatrics: Ethical and Social Concerns," *Symposium the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):501-505, July-August 1985.

52. Frongillo, E.A., Jr., Williamson, D.F., Roe, D., and Scholes, J. "Continuance of Elderly on Home-Delivered Meals Programs," *American Journal of Public Health*, 77(9), September 1987.

53. Geriatrics Panel and Discussion. "Practical Considerations in Managing Alzheimer's Disease: I," *Geriatrics*, 42(9):78-98, September 1987.

54. Geriatrics Panel and Discussion. "Practical Considerations in Managing Alzheimer's Disease: II," *Geriatrics*, 42(10):55-65, October 1987.

55. Gibbs, N.R. "Grays on the Go," *Time*, p. 66, February 22, 1988.

56. Granick, S. "Psychologic Assessment Technology for Geriatric Practice," *Journal of the American Geriatrics Society*, 31(12):728-742, December 1983.

57. Greene, M.G., Hoffman, S., Charon, R., and Adelman, R. "Psychosocial Concerns in the Medical Encounter: A Comparison of the Interactions of Doctors with Their Old and Young Patients," *The Gerontologist*, 27(2):164-168, 1987.

58. Grover, S., M.D., et al. "Impact of Medicare on Early Cancer Detection in the Elderly," *American Journal of Public Health*, 78(1):58-60, January 1988.

59. Gruca, J.A. "Three Perspectives on Curriculum Development in Gerontology," *Gerontology and Geriatrics Education*, 6(3):65-72, Spring 1986.

60. Hagestad, G.O. "Able Elderly in the Family Context: Changes, Chances, and Challenges," *The Gerontologist*, 27(4):417-422, 1987.

61. Harel, Z., Noelker, L., and Blake, B.F. "Comprehensive Services for the Aged: Theoretical and Empirical Perspectives," *The Gerontologist*, 25(6):644-649, 1985.

62. Havlik, R.J., Liu, B.M., Kovar, M.G., et al. "Health Statistics on Older Persons," National Center on Health Statistics, p. 1-77, 1986.

63. Hay, J. and Ernst, R. "The Economic Costs of Alzheimer's Disease," *American Journal of Public Health*, 77(9)1169-1175, September 1987.

64. Henig, R. "Can -or Should- We Conquer Aging," *Washington Post Health*, p. 10, November 24, 1987.

65. Henninger, J.L., Henninger, W.B., Morse, C.K., and Zweigenhaft, R.L. "Physicians' Awareness of Services for the Elderly," *Gerontology and Geriatrics Education*, 7(2):21-28, Winter 1986.

66. Hesse, K.A., Levkoff, S.E., Campion, E.W. "House Officers' Knowledge of Geriatric Health Policy: Are the Gatekeepers Learning the Rules?," *The Gerontologist*, 28(2):233-236, 1988.

67. Hickey, T. *Health and Aging*, Wadsworth, Inc., Belmont, CA, 1980.

68. Higbie, L. "To Understand the Aging Process: The Baltimore Longitudinal Study of the National Institute on Aging," NIH Pub. No. 80-134, August 1980.

69. Hing, E. *Use of Nursing Homes by the Elderly: Preliminary Data from the 1985 National Nursing Home Survey*, National Center for Health Statistics, No. 135. DHHS Pub. No. (PHS) 87-1200, Public Health Service, Hyattsville, MD.

70. Hofland, B.F., Kirby, William, T., Hennessy, M., Lawler, T., and Santos, J.F. "A National Media Awards Competition in Gerontology and Geriatrics," *Gerontology and Geriatrics Education*, 7(1):5-13, Fall 1986.

71. Hofland, B.F., Smyer, M.A., Wetle, T., Walter, Adrian R. "Linking Research and Practice: The Fellowship Program in Applied Gerontology," *The Gerontologist*, 27(1):39-45, 1987.

72. Hudson, R.B. "Tomorrow's Able Elders: Implications for the State," *The Gerontologist*, 24(4):405-409, 1987.

73. Johnson, J.E., III. "Geriatrics and Medical Education - Initiatives of the Association of American Medical Colleges," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):484-491, July-August 1985.

74. Kahn, R.L. "Productive Behavior: Assessment, Determinants, and Effects," *Journal of the American Geriatrics Society*, 31(12):750-757, December 1983.

75. Kane, R., Solomon, D., Beck, J., Keeler, E., and Kane, R. "The Future Need for Geriatric Manpower in the United States," *The New England Journal of Medicine*, 302(24):1327-1332, June 1980.

76. Kane, R.A., and Kane, R.L. *Assessing the Elderly: A Practical Guide to Measurement*, Lexington, Mass: Lexington Books, 1981.

77. Kapp, M. "Interprofessional Relationships in Geriatrics: Ethical and Legal Considerations," *The Gerontologist*, 27(5):547-552, 1987.

78. Karuza, J., Jr., Calkins, E., Duffey, J., and Feather, J. "Network in Aging: A Challenge, Model, and Evaluation," *The Gerontologist*, 28(2):147-155, 1988.

79. Katz, S. "Assessing Self-Maintenance: Activities of Daily Living, Mobility, and Instrumental Activities of Daily Living," *Journal of the American Geriatrics Society*, 31(12):721-727, December 1983.

80. Kim, P.K.H., Johnson, D.P., Su, L. "Education for Gerontological Social Workers: Problems and Prospects," *Gerontology and Geriatrics Education*, 6(4):69-76, Summer 1986.

81. Kosberg, J.I. "Preventing Elder Abuse: Identification of High Risk Factors Prior to Placement Decisions," *The Gerontologist*, 28(1):43-50, 1988.

82. Kroger, M.H., Papsidero, J.A., Isaacs, F., Jr., Gesten, F.C. "The Content of Textbooks in Geriatric Medicine: Some Directions for Improvement," *Gerontology and Geriatrics Education*, 7(1):37-53, Fall 1986

83. Krout, J.A. "Rural-Urban Differences in Senior Center Activities and Services," *The Gerontologist*, 27(1):92-97, 1987.

84. Lago, D., Silverman, M., Eisele, F., Ricci, E., Britton, J. "The Development and Evaluation of Training Standards for the Aging Network and Academia: III. Conclusions and Implications," *Gerontology and Geriatrics*, 7(2):55-65, Winter 1986.

85. Lebowitz, B.D., Light, E., and Bailey, F. "Mental Health Center Services for the Elderly: The Impact of Coordination With Area Agencies on Aging," *The Gerontologist*, 27(6):699-702, 1987.

86. Leutz, W., Abrahams, R., Greenlick, M., Kane, R., Prottas, J. "Targeting Expanded Care to the Aged: Early SHMO Experience," *The Gerontologist*, 28(1):4-17, 1988.

87. Linsk, N.L, Keigher, S.M., and Osterbusch, S. "States' Policies Regarding Paid Family Care Giving," *The Gerontologist*, 28(2):204-212, 1988.

88. Lubomudrov, S. "Congressional Perceptions of the Elderly: The Use of Stereotypes in the Legislative Process," *The Gerontologist*, 27(1):77-81, 1987.

89. Ludman, E.K. and Newman, J.M. "Frail Elderly: Assessment of Nutrition Needs," *The Gerontologist*, 26(2):198-202, 1986.

90. Magee, J.H. *Gerontology Programs and Curricula in U.S. Schools of Public Health*, ASPH for HRSA, June 1985.

91. Michielutte, R., Diseker, R.A. "Health Care Providers' Perceptions of the Elderly and Level of Interest in Geriatrics as a Specialty," *Gerontology and Geriatrics Education*, 5(2):65-85, Winter 1984/85.

92. Miko, P.S. "College Students and Institutionalized Elderly: Attitudinal Effects of Interactive Contacts," *Gerontology and Geriatrics Education*, 6(3):37-42, Spring 1986.

93. Moon, M. "Impact of the Reagan Years on the Distribution of Income of the Elderly," *The Gerontologist*, 26(1):32-37, 1986.

94. Morris, R. "Concluding Remarks: Consequences of the Demographic Revolution," *The Gerontologist*, 27(4):423-424, 1987.

95. Mullins, L.C., McNicholas, N. "Loneliness Among the Elderly: Issues and Considerations for Professionals in Aging," *Gerontology and Geriatrics Education*, 7(1):55-65, Fall 1986.

96. National Advisory Council on Aging. *Our Future Selves. A Research Plan Toward Understanding Aging: Report of the Panel on Behavioral and Social Sciences Research*, NIH Pub. No. 80-1444, January 1980.

97. National Advisory Council on Aging. *Our Future Selves. A Research Plan Toward Understanding Aging: Report of the Panel on Research on Human Services and Delivery Systems*, NIH Pub. No. 80-1443, January 1980.

98. National Center for Health Statistics. "Aging in the Eighties, Age 65 Years and Over - Use of Community Services," *Advancedata*, 124:1-7, September 1986.

99. National Center for Health Statistics. "Use of Nursing Homes by the Elderly: Preliminary Data from the 1985 National Nursing Home Survey," *Advancedata*, 135:1-11, May 1987.

100. *National Institute on Aging*, NIH Pub. No. 83-1129, July 1983.

101. National Institute on Aging. *Age Page: Stroke: Prevention and Treatment*, DHHS, 1986.

102. National Institute on Aging. *Age Page: When You Need a Nursing Home*, DHHS, 1986.

103. National Institute on Aging. *Aging and Minorities*, GPO 885-273, 1981.

104. National Institute on Aging. *Changes: Research on Aging and the Aged*, NIH Pub. No. 81-85, October 1980.

105. National Institute on Aging. *Osteoporosis & Aging*, GPO 885-297, 1987.

106. National Institute on Aging. *Personnel for Health Needs of the Elderly Through the Year 2020*, September 1987.

107. National Institute on Aging. *Perspectives on Geriatric Medicine*, NIH Pub. No. 81-1924, October 1980.

108. National Institute on Aging. *Progress Report on Alzheimer Disease: Volume III*, NIH Pub. No. 86-2873, December 1986.

109. National Institute on Aging. *Special Report on Aging 1983*, NIH Pub. No. 83-2489, August 1983.

110. National Institute on Aging and Pfizer Pharmaceuticals. *Help Yourself to Good Health.*

111. National Institute on Aging Task Force. "Senility Reconsidered--Treatment Possibilities for Mental Impairment in the Elderly," *JAMA*, 244(3):259-263, 1980.

112. Netting, F.E, Wilson, C.C. "Current Legislation Concerning Life Care and Continuing Care Contracts," *The Gerontologist*, 27(5):645-651, 1987.

113. Nusberg, C. "Survey on International Course Content Related to Aging in the Curricula of American Higher Education," *Gerontology and Geriatrics Education*, 6(3):73-77, Spring 1986.

114. Oktay, J.S., Volland, P.J. "Foster Home Care for the Frail Elderly as an Alternative to Nursing Home Care: An Experimental Evaluation," *American Journal of Public Health*, 77(12):1505-1510, 1987.

115. Petchers, M.K., Milligan, S.E., "Access to Health Care in a Black Urban Elderly Population," *The Gerontologist*, 28(2):213-217, 1988.

116. Peterson, D.A. "Extent of Gerontology Instruction in American Institutions of Higher Education," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 1, Fall 1986.

117. Peterson, D.A. "Gerontology Courses," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 4, Spring 1987.

118. Peterson, D.A. "Gerontology Credentials," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 3, Spring 1987.

119. Peterson, D.A. "Organizational Structures of Gerontology Instructional Programs," *AGHE/USC National Survey of Gerontology Instruction*, Report No. 2, Winter 1986/87.

120. Peterson, D.A. "Graduates' Perceptions of Gerontology Master's Degree Curricula," *Gerontology and Geriatrics Education*, 5(3):19-27, Spring 1985.

121. Pillemer, K, Finkelhor, D. "The Prevalence of Elder Abuse: A Random Sample Survey," *The Gerontologist*, 28(1):51-57, 1988.

122. Rick, S. "Hill Conferees Drafting 'Catastrophic' Health Deal," *Washington Post*, p. A6, March 1988.

123. Rick, S. "Shaking Up the System With Data for Consumers, Medicare Chief Hopes Initiatives Set Pattern," *Washington Post*, March 22, 1988.

124. Roden, J. "Aging and Health: Effects of the Sense of Control," *Science*, 33:1271-1275, September 1986.

125. Rossman, I. "Comprehensive Functional Assessment: A Commentary," *Journal of the American Geriatrics Society*, 31(12):763-765, December 1983.

126. Rubenstein, L. "The Chemical Effectiveness of Multidimensional Geriatric Assessments," *Journal of the American Geriatrics Society*, 31(12):758-762, December 1983.

127. Ruchlin, H.S. "Continuing Care Retirement Communities: An Analysis of Financial Viability and Health Care Coverage," *The Gerontologist*, 28(2):156-162, 1988.

128. Samuelson, R.J. "The Elderly Aren't Needy," *Newsweek*, March 21, 1988, p. 68.

129. Select Committee on Aging (House of Representatives): *America's Elderly at Risk*, July 1985.

130. Sharp, S.J.; Britton, J.H., Lazo, D., Ricci, E., Silverman, M. Shore, B.K., Young, J.E. "The Development and Evaluation of Training Standards for the Aging Network and Academia: I. Background and Rationale," *Gerontology and Geriatrics Education*, 7(2):39-45, Winter 1986.

131. Silverman, M., Shore, B.K., Jewell, I.K. "The Development and Evaluation of Training Standards for the Aging Network and Academia: IV: One Year Follow-Up Evaluation of the Implementation of the Training Standards," *Gerontology and Geriatrics Education*, 7(2):67-81, Winter 1986.

132. Sinclair, M. "Study Links Poverty, Health Care," *Washington Post*.

133. Smith, E.T., Kelly, K., Brown, C. "Aging: Can it Be Slowed?," *Business Week*, p. 58, February 1988.

134. Sommers, A.R., and Fabian, D.R. (Eds). *The Geriatric Imperative: An Introduction to Gerontology and Clinical Geriatrics*, Appleton-Century-Crafts, New York, N.Y., 1981.

135. Stone, Robyn, *Aging in the Eighties. Age 65 Years and Over - Use of Community Services; Preliminary Data from the Supplement on Aging to the National Health Interview Survey: United States. January - June 1985*, National Center for Health Services, Number 124, DHHS Pub. No. (PHS) 86-1250. Public Health Service, Hyattsville, MD, September 1986.

136. Storey, J.R. "Policy Changes Affecting Older Americans During the First Reagan Administration," *The Gerontologist*, 26(1):27-31, 1986.

137. Task Force on Alzhemier's Disease. *Alzheimer's Disease: A Scientific Guide for Health Practitoners*, NIH No. 84-2251, May 1984.

138. Taylor, H., Kagay, M. Leichenko, S. *Problems Facing Elderly Americans Living Along: A National Survey*, Louis Harris and Associates, Inc., 1986.

139. Tell, E.J., Cohen, M.A.; Larson, M.J., and Batten, H.J. "Assessing the Elderly's Preferences for Lifecare Retirement Options," *The Gerontologist*, 27(4):503-509, 1987.

140. Torres-Gil, F. and Pynoos, J. "Long-Term Care Policy and Interest Group Struggles," *The Gerontologist*, 26(5):488-495, 1986.

141. Touifexis, A. "Older - But Coming on Strong," *Time*, p. 76, February 22, 1988.

142. Turpic, I.D., Patterson, C., Chalklen, L.W., Bayne, R., Roy, J., Neufeld, C. "The McMaster Model for Geriatric Undergraduate Experience," *Gerontology and Geriatrics Education*, 6(4):59-67, Summer 1986.

143. U.S. Senate Special Committee on Aging. *Aging America. Trends and Projections*, 1987-1988 Edition.

144. U.S. Senate Special Committee on Aging. *The Health Status and Health Care Needs of Older Americans (An Information Paper)*, November 1986.

145. U.S. Senate Special Committee on Aging. *How Older Americans Live: An Analysis of Census Data*, October 1985.

146. U.S. Senate Special Committee on Aging. *Nursing Home Care: The Unfinished Agenda*, May 1986.

147. Weg, R.B. "AGHE - Coming of Age," *Gerontology and Geriatrics Education*, 5(1):17-31, Fall 1984.

148. Weiler, P.G. "The Public Health Impact of Alzheimer's Disease," *American Journal of Public Health*, 77(9).

149. Weiner, J.M., Ehrenworth, D.A., Spence, D.A. "Private Long-Term Care Insurance: Cost, Coverage, and Restrictions," *The Gerontologist*, 27(4):487-493, 1987.

150. Wilcop, Frances, M. "Issues in the Development of Training for Mental Health Service to the Elderly," *Gerontology and Geriatrics Education*, 6(2):49-63, Winter 1985.

151. Williams, T.F. "Comprehensive Functional Assessment: An Overview," *Journal of the American Geriatrics Society*, 31(11):637-641, November 1983.

152. Williams, T.F. "The Geriatric Medical Education Imperative," *Symposium on the Geriatric Medical Education Imperative. Bulletin of the New York Academy of Medicine*, 61(6):471-477, July-August 1985.

153. Williams, M.E. "A Critical Evaluation of the Assessment Technology for Urinary Continence in Older Persons," *Journal of the American Geriatrics Society*, 31(11):657-664, November 1983.

154. Yeatts, D.E., Capitman, J.A., Steinhardt, B.J. "Evaluation of Connecticut's Medicaid Community Case Waiver Program," *The Gerontologist*, 27(5):652-659, 1987.

155. Young, C.L., Goughler, D.H., Larson, P.J. "Organizational Volunteers for the Rural Frail Elderly: Outreach, Casefinding, and Service Delivery," *The Gerontologist*, 26(4):342-394, 1986.

I. Introduction

Introduction to Module: Health Promotion For The Older Adults

The primary purpose of this module is to identify the core principles for planning, implementing, and evaluating health promotion programs for the elderly.

This module identifies the health status and demographic characteristics of the older adult population as these impact the development of responsive programming. In addition, the module presents research findings and Federal planning initiatives that set the stage for the development of health promotion programming for the elderly. The module also provides a conceptual discussion of health, wellness, and health promotion as these apply to older adults.

In addition to presenting a phased approach to planning, implementing, and evaluating health promotion programs, the module outlines several nationally known health promotion programs, and details the key common components of their success.

Notes to the Instructor

The remainder of this module is organized into six sections. Section II presents the Overview of the training, as well as a listing of the resources referenced within the training module.

Section III contains the core content for the training module. The materials have been organized in seven sub-sections to facilitate a range of training formats, such as lunch-time sessions through full-day workshops. The Training Content is presented in a two-column format. The left-hand column presents miniaturized versions of the overheads designed to accompany training lectures/discussions. The overheads are symbolized by boxes formed of unbroken lines. Directions for training activities are also placed in the left-hand column; these are denoted by dotted lines. Many activities require the use of flipcharts and markers; please be sure you have arranged for these materials. The right-hand column contains the substantive material that serves as a script for training. Where handouts accompany the training, these have been noted by a symbol of three overlapping pages.

Section IV presents the full-scale version of Overheads. These may be used as overheads or may be duplicated for use as handouts. When using these materials as overheads, remember that you will need to have access to an overhead projector and screen. Trainers may find the use of slides more convenient than overheads. The material in Section IV can be formatted as slides. The visual image of such slides may be enhanced by using a blue background with white print.

Section V presents the Handouts that accompany the training content. Both overheads and handouts should be assembled and reviewed prior to use in a training session. It is advisable to prepare sufficient copies of handouts for the anticipated number of trainees, as well as a few extra for unforeseen circumstances.

Introduction To Module: Health Promotion For The Elderly
(Continued)

Section VI presents relevant Resources, including bibliographies, that may be useful to the trainer and/or to trainees. You may wish to make duplicate copies of these resource listings for distribution during or immediately following training sessions.

Section VII presents Readings that serve as background to the training issues or that provide additional detail on selected issues. These readings may be recommended to trainees in advance of actual training sessions, or upon completion of the module.

II. Overview

Overview: Health Promotion for Older Adults

1. **Demographic Framework**

Time: Lecture/Discussion (20 minutes), including
- Group discussion (10-15 minutes)

Objective: To describe the health status and demographic characteristics of the older adult population that are amenable to health promotion interventions.

Overheads:
1. Profile of Health Services Utilization Rates for 65+ Population
2. Causes of Death

Handouts:
1. 1982 Death Rates for the Ten Leading Causes of Death Among Persons 65 and Older, By Rank Order and By Age
2. Ten Leading Causes of Death

best copy available

2. **Health Promotion: Research Findings and Planning Initiatives**

Time: Lecture/Discussion (45 minutes), including:
- Self-Test Activity (2-5 minutes)
- Group Discussion (5-10 minutes)

Objective: To examine the relationship between diseases affecting the elderly and opportunities for health promotion intervention.

Overheads:
1. Factors That Influence an Individual's Chances of Surviving to Age 65
2. The Framingham Study
3. Seven Habits Related to Enhanced Health Status
4. 1990 Health Strategy Targets: Preventive Health Services
5. 1990 Health Strategy Targets: Health Protection
6. 1990 Health Strategy Targets: Health Promotion
7. Health Status Goals
8. Disease Prevention
9. Prevention and Improvement of Quality of Life
10. Health Promotion Intervention
11. Goal for Ill Elderly
12. Functional Dependency
13. Determinants of Dependency
14. External Determinants of Dependency

Handouts:
1. Personal Health Habits Questionnaire

3. **Health Promotion: Conceptual Framework**

Time: Lecture/Discussion (90 minutes), including:
- Group Discussion (15 minutes)
- Brainstorm Role of Public Health (30 minutes)

Objective: To define the concept of health, wellness, and health promotion as these apply to older individuals.

Overheads:
1. Cartoon
2. The Health Continuum
3. Health Promotion and the Compression of Morbidity
4. Health Promotion and the Well Elderly
5. Health Promotion for the Frail Elderly
6. Broad Perspective of Health Promotion Objectives
7. Public Health Perspective
8. Etiologic Agents of Functional Dependency

Handouts:
1. Risk Factors Associated With Dependency

4. **The Principles of Program Planning, Implementation, and Evaluation**

Time: Activity/Lecture (120 minutes), including:
- Small Group Session (30 minutes)
- Wrap-Up Session (30 minutes)
- Group Discussion (5-10 minutes)

Objective: To discuss and apply the principles of planning, implementing, and evaluating health promotion programs.

Overheads:
1. Health Promotion Program Steps
2. Researching the Problem at the National Level
3. Design Considerations
4. Local Information Resources
5. Knowledgable Individuals
6. Behavior in Senior Consumers
7. Assumptions That Shaped Early Planning Efforts
8. Program Goals
9. Program Activities
10. Suggested Strategies for Reducing Misuse of Medication
11. Positive Factors Affecting Pharmacists' Potential Success as Patient Educators
12. Barriers to Pharmacists as Patient Educators
13. Support Activities for Center Operations
14. Attracting Funding
15. Sources of Funding
16. Community Resources
17. Data Collection
18. Value of Program Evaluation

Handouts:
1. Nutrition: Overview and Questions; or
   Injury Prevention: Overview and Questions; or
   Exercise: Overview and Questions
2. Recording Form: A Five-Step Approach to Designing a Successful Health Promotion Program
3. Sample Questionnaires
4. Behaviors Related to the Medication Misuse Problem

5. **Best Practices: Consideration of Existing Programs**

Time: Lecture/Discussion (30 minutes)

Objective: To describe several model health promotion programs that have achieved national recognition.

Overheads:
1. Stay Well -- Pivotal Concepts
2. Four Components of the Stay Well Program
3. Key Features
4. Growing Younger Workshops
5. Evaluation Findings
6. Growing Wiser Workshops
7. SHAF Focus
8. SHAF Health Education Course

Handouts:
1. Program Overviews for:
   - Stay Well
   - Growing Younger/Growing Wiser
   - Staying Healthy After Fifty

6. **Special Consideration for Developing Health Promotion Strategies**

Time: Lecture/Discussion (60 minutes), including:
- Vision of Aging (5-10 minutes)
- Self-Test/Discussion (25 minutes)

Objective: To detail the crucial factors to consider when developing health promotion strategies.

Overheads:
1. Key Components of Successful Health Promotion Programs for Seniors
2. Key Considerations
3. Public Relations Strategies
4. 7 Ps of Recruitment
5. Use of Community/Family Members
6. Use Existing Channels of Communication
7. Readiness to Take Action
8. Demographic Considerations
9. Factors Infuencing Use of Innovative/New Information

Handouts:
1. Practical Considerations for Program Implementation
2. Publicity: Sample Plan and Procedure
3. Appalachian Intelligence Test

7. **Health Education Techniques**

Time: Lecture/Discussion (60 minutes), including:
- Brainstorming Activity (15-20 minutes)
- Effective Presentation Techniques Discussion (15 minutes)

Objective: To discuss effective techniques for presenting health education.

Overheads:
1. Health Education
2. Ineffective Training
3. Elements of Effective Training

Handouts:
1. Presentation Tips and Techniques
2. Resources for Health Promotion With Older Adults

References

Abdellah FG and Moore SR (eds.). *Surgeon General's Workshop: Health Promotion and Aging (Proceedings).* DHHS, Washington, D.C., March 20-23, 1988.

Barry PZ. Individual Versus Community Orientation in the Prevention of Injuries. *Preventive Medicine.* 4: 47-56, 1975.

Counts M and Kupchak SB. *The Dynamics of Family Caregiving for Older Patients.* Presented at the Ohio Valley Appalachia Regional Geriatric Education Center, Summer Geriatric Institute, August, 1988.

DiMatteo MR and DiNicola DD. *Achieving Patient Compliance.* New York: Pergamon Press, 1982.

Eng K. *Preventing Geriatric Medication Misuse: A Manual for Developing a Model Program.* San Francisco Department of Public Health, 1982.

Fall Creek S, Warner-Reitz A and Mettler MH. Designing Health Promotion Programs for Elders in: Dychtward K (ed.). *Wellness and Health Promotion for the Elderly.* Rockville, MD: Aspen Publishers, Inc., 219-233, 1986.

Filner B and Williams FT. Health Promotion for the Elderly: Reducing Functional Dependency in: Somers A (ed.). *The Geriatric Imperative.* New York: Appleton-Century Crofts, 187-204, 1981.

Fries JF. The Compression of Morbidity: Miscellaneous Comments About a Theme. *The Gerontologist.* 24(4): 354-359.

Haynes RB, Sackett DL, and Taylor DW. How to Detect and Manage Low Patient Compliance in Chronic Illness. *Geriatrics.* 35: 91-97 (1980).

Hogue C. Injury in Late Life: Part I. Epidemiology. *Journal of the American Geriatrics Society.* March 1982.

Kemper DW, Deneen EJ, and Giuffre J. *Growing Younger: The Older Person's Guide to Health and Wellness.* Boise, ID: Healthwise Inc., 1987.

Kemper DW, Mettler M, Giuffre J, and Matzek B. *Growing Wiser: The Older Person's Guide to Mental Wellness.* Boise, ID: Healthwise, Inc., 1986.

McLeroy KR, Bibeau D, Steckler A, and Glanz K. An Ecological Perspective on Health Promotion Programs. *Health Education Quarterly.* 15(4): 351-377, Winter 1988.

Mettler M and Kemper D. *Designing and Implementing Health Promotion Programs for Older Adults.* American Society on Aging Annual Conference, March 1989.

National Center for Health Statistics (NCHS). *Advance Report of Final Mortality Statistics.* Washington, DC, 1982.

References (Continued)

Minkler M. Application of Social Support Theory to Health Education: Implications for Work with the Elderly. *Health Education Quarterly*. 3: 147-165, 1981.

Pfeiffer GJ. *Taking Care of Today and Tomorrow: A Resource Guide for Health, Aging, and Long-Term Care*. Reston, VA: The Center for Corporate Health Promotion, 1989.

Public Health Service. *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention*. DHHS, Washington, D.C., 1979.

Public Health Service. *The 1990 Health Objectives for the Nation: A Midcourse Review*. DHHS, Washington D.C., 1986.

National Institute on Aging, *Help Yourself to Good Health*, DHHS and Pfizer Pharmaceuticals.

New York City Department for the Aging. *Stay Well: A Health Promotion Program for Older Adults*. New York, 1988.

Sinclair M. When Medicine Becomes Harmful. *The Washington Post*. B11, September 8, 1988.

Tinetti ME. Factors Associated With Serious Injury During Falls by Ambulatory Nursing Home Residents. *Journal of the American Geriatrics Society*. 35(7): 644-648, July 1987.

III. Training Content

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (20 minutes) 1. Identify the health status and demographic characteristics of the older adult population.	**DEMOGRAPHIC FRAMEWORK** Increasingly, the elderly constitute a significant, and growing, segment of the American population (Abdellah and Moore, 1988). • In 1988, 1 in 9 Americans was over 60 years old. By 2030, 1 in 4 Americans will be 60 years old. • Among the elderly, the fastest growing group is the over 85 years old. • In 1988, 1 in 15 Americans was over 85 years old. By 2030, 1 in 10 Americans will be over 85 years old. It is important to understand how this senior population impacts health care services and costs. The over-65 population accounts for:
Overhead: Profile of Health Services Utilization Rates for 65+ population • 30% of $300B annual health budget. • 90% of $75B annual nursing home budget. • 40% of acute hospital bed occupancy days. • 25% of all prescription drugs. • 40% of over-the-counter drugs. • 50% of physician-practitioner time. • 25% more annual doctor visits. Source: National Center for Health Statistics, 1984 Health Interview Survey Aging Supplement	• 30% of $300 billion annual health budget. • 90% of $75 billion annual nursing home budget. • 40% of acute hospital bed occupancy days. • 25% of all prescription drugs. • 40% of over-the-counter drugs. • 50% of physician-practitioner's time. • 25% more annual doctor visits.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Handout: 1982 Death Rates for the Ten Leading Causes of Death Among Persons 65 and Older, By Rank Order and By Age	Death rates for the leading causes of death among persons 65 years old and older show that heart disease, cancer, and stroke are responsible for more than 65% of all deaths among the elderly.
	• Chronic disease is a fact of life for most older Americans (e.g., hypertension, arthritis, hearing and vision loss, and heart disease); with younger people, acute illness is more prevalent. • 80% of seniors have one or more chronic conditions.
Activity. Group Discussion (10-15 minutes): • Using Overhead: Causes of Death, have group discuss the two questions. • Then hand out Ten Leading Causes of Death, United States, 1987.	Questions for Group Discussion: • Which of these diseases are a result, at least in part, of lifestyle? • What intervention might impact such diseases?
Overhead: Causes of Death • Heart Disease • Cancer • Strokes • Unintentional injuries • Chronic obstructive lung disease • Pneumonia and influenza • Diabetes mellitus • Suicide • Chronic liver disease and cirrhosis • Atherosclerosis	
Handout: Ten Leading Causes of Death, United States, 1987.	Nutrition and alcohol consumption have been implicated in 8 out of 10 leading causes of death shown in the list above.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (45 minutes)	HEALTH PROMOTION: RESEARCH FINDINGS AND PLANNING INITIATIVES
2. Discuss the relationship between diseases affecting the elderly and opportunities for health promotion intervention.	
Overhead: Factors That Influence an Individual's Chances of Surviving to Age 65	Research Findings Experts believe that a significant segment of American society could add quality years to their life expectancy through "life extension" strategies. • The Centers for Disease Control identified 4 key factors that influence an individual's chances of living to age 65. • As the chart illustrates, lifestyle is a major influence on an individual's life expectancy (Pfeiffer, 1989). • Unfortunately, many older people hold stereotypes of how they should feel -- "I'm old, and maybe I should expect to feel lousy."
Overhead: The Framingham Study Correlation between cardiovascular disease and risk factors of: • Smoking • Obesity • Hypertension	Hundreds of studies show that health promotion activities can improve health and prevent certain chronic diseases. Two landmark studies, the Framingham Study and the Alameda County Study are relevant for older populations. The Framingham Study, begun in 1948, demonstrated the correlation between cardiovascular disease and the risk factors of smoking, obesity, and hypertension. • One finding of the Framingham Study was that the rate of coronary disease for men with sedentary, low-exercise lifestyles was about three times higher than that for active men.
Activity. Self-Test Activity (2-5 minutes): • Hand out Questionnaire. • Have participants circle the answer that best describes their own habits.	Personal Health Habits Questionnaire

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead: Seven Habits Related to Enhanced Health Status

- No smoking
- Maintaining reasonable weight
- Eating breakfast
- Rarely snacking between meals
- Drinking alcohol only in moderation
- Sleeping 7-8 hours, nightly
- Exercising regularly

- Between 1965 and 1974, the Alameda County Study looked at the personal habits of 7,000 people living in this California county. The study found seven health habits were related to physical health status and mortality (Abdellah and Moore, 1988).

- The 7 health habits related to enhanced health status and lower mortality are:

  1. Do not smoke.
  2. Maintain a reasonable weight.
  3. Eat breakfast.
  4. Rarely snack between meals.
  5. Drink alcohol in moderation only.
  6. Sleep seven to eight hours a night.
  7. Exercise on a regular basis.

- The study findings for all population groups were:

  - The death rate for men observing all seven health practices was only 28% that of men who followed three or fewer.

  - The death rate for women observing all seven health habits was 43% that of women who followed three or fewer -- women who don't engage in all of these health habits have a little more protection than their male counterparts due to the presence of higher estrogen levels.

<u>Planning Initiatives</u>

Until the last decade, the emphasis was on adding years to life; little attention was focused on improving the quality of those additional years.

Given the evidence that the rates of certain diseases and preventable deaths could be reduced, the Federal government began a 10-year initiative for health promotion and disease prevention.

- The 1979 report, *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* set goals to reduce death and disability rates by 1990 for different age groups.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- The report stressed that improvements in the health of Americans would not come from advances in medical care and increases in health expenditures, alone; but can result from a strong commitment to efforts designed to *prevent* disease and *promote* health.

Overhead: 1990 Health Strategy
Targets: Preventive Health Services

- High Blood Pressure Control
- Family Planning
- Pregnancy and Infant Health
- Immunization
- Sexually Transmitted Disease

The strategic targets for 1990 included 15 topics divided into three areas:

- Preventive Health Services for Individuals:
  - High Blood Pressure Control.
  - Family Planning.
  - Pregnancy and Infant Health.
  - Immunization.
  - Sexually Transmitted Diseases.

Overhead: 1990 Health Strategy
Targets: Health Protection

- Toxic Agent and Radiation Control
- Occupational Safety and Health
- Accident Prevention and Injury Control
- Fluoridation and Dental Health
- Surveillance and Control of Infectious Diseases

- Health Protection for Population Groups:
  - Toxic Agent and Radiation Control.
  - Occupational Safety and Health.
  - Accident Prevention and Injury Control.
  - Fluoridation and Dental Health.
  - Surveillance and Control of Infectious Diseases.

Overhead: 1990 Health Strategy
Targets: Health Promotion

- Smoking and Health
- Misuse of Alcohol and Drugs
- Nutrition
- Physical Fitness and Exercise
- Control of Stress and Violent Behavior

- Health Promotion for Population Groups:
  - Smoking and Health.
  - Misuse of Alcohol and Drugs.
  - Nutrition.
  - Physical Fitness and Exercise.
  - Control of Stress and Violent Behavior.

Overhead: Health Status Goals

AGE GROUP	1990 GOAL*	SPECIAL FOCUS
Healthy Infants (below age 1)	35% Fewer Deaths	Low Birth Weight, Birth Defects
Healthy Children (ages 1-14)	20% Fewer Deaths	Growth and Development, Injuries
Healthy Adolescents/ Young Adults (ages 15-24)	25% Fewer Deaths	Motor Vehicle Injuries, Alcohol and Drugs
Healthy Adults (ages 25-64)	25% Fewer Deaths	Heart Attacks, Strokes, Cancer
Healthy Older Adults (age 65+)	20% Fewer Sick Days	Functional Independence, Influenza/Pneumonia

The 1990 Health Objectives for the Nation were also prioritized by the specialized focus appropriate to each of 5 age groups (Public Health Services, DHHS, 1986).

- Age Group: Healthy infants (below age 1):
  - 1990 Goal: 35% fewer deaths.
  - Special focus: low birth weight, birth defects.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- Age Group: Healthy children (age 1-4):
  - 1990 Goal: 20% fewer deaths.
  - Special focus: growth, development, and injuries.
- Age Group: Healthy adolescents/young adults (age 15-24):
  - 1990 Goal: 20% fewer deaths.
  - Special focus: motor vehicle injuries, alcohol, and drugs.
- Age Group: Healthy adults (age 25-64):
  - 1990 Goal: 25% fewer deaths.
  - Special focus: heart attacks, strokes, and cancers.
- Age Group: Healthy older adults (age 65+):
  - 1990 Goal: 20% fewer sick days.
  - Special focus: functional independence, influenza/ pneumonia.

In 1979, older people (i.e., 65+) were stereotyped as largely dependent and frail.

- Now, we know that there is great variation among the elderly in terms of health and in terms of interest in engaging in promotion activities.
- The focus for healthy older adults now has shifted toward the same issues as targeted for healthy 25-64 year olds.

Overhead: Disease Prevention

The most prevalent diseases derive from lifestyle and environmental factors -- factors we can control.

During the plenary session, "Year 2000 Health Objectives for the Nation," Assistant Surgeon General McGinnis emphasized that there is now a special effort to set targets for older Americans in the new health objectives for the year 2000 since it is now recognized that *there are benefits to be gained at all ages from the adoption of healthy practices* (Abdellah and Moore, 1988, pp. 20).

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Prevention and Improvement of Quality of Life Scientific evidence shows that preventive practices and healthy behaviors improve the quality of later life through: • Less premature disability • Shortened periods of acute illness • Less need for long-term care	McGinnis stated: • "Many of the so-called signs of old age are actually the sequelae of disease. And the most prevalent diseases, furthermore, are those which derive from lifestyle and environmental factors, factors within our control. The interplay of these factors as we age accounts in large part for the wide variation between chronological and physiological age we see in the older population." • "In addition to separating aging from disease, the scientific evidence is building a strong case that preventive practices and healthy behaviors can have a substantial impact on the quality of later life, through less premature disability, shortened periods of acute illness, and less need for long-term care. While research in prevention is just starting to address older people, a substantial body of knowledge has been developed over the past 20 years linking personal behavior to health status...."
Overhead: Health Promotion Intervention • Chronic conditions afflicting older people respond to intervention such as exercise, diet, and early care • Stroke and hip fracture can be prevented through health promotion activities.	• "The leading chronic conditions afflicting older people -- arthritis, hypertension, hearing and visual loss, and heart problems -- are conditions we know have the potential in many cases to respond to health promotion interventions such as exercise, healthy diet, and early care. And at least two of the three most debilitating conditions which lead to a need for long-term care -- stroke and hip fracture -- could be prevented."
Overhead: Goal for Ill Elderly Goal: Maximize function and prevent further deterioration	• "For those people already ill, *our goal should be to maximize function and prevent further deterioration.* Changes in diet, exercise, and other health behaviors -- may have an impact on function and ability to cope with the demands of daily life, even beyond their gains in health status." The special focus of the 1990 objectives is on *functional independence*.
Activity: Group Discussion (5-10 min.): Use flipchart to record responses to 2 Questions for Discussion	Questions for Discussion: • What does functional independence mean when applied to an elderly population? • How can health promotion activities assist in maintaining functional independence?

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	As a result of chronic diseases that are facts of life for most older Americans, almost half of the elderly experience limitations in an activity of daily living.
	• 38% cannot carry on their major activity, and 5% of those elderly living in the community are homebound.
	• The secondary consequences of chronic conditions frequently are physical restrictions and/or mental deterioration that become the precursors to functional dependency.
Overhead: Functional Dependency The inability to attend to one's own needs, such as: • Ambulation • Eating and/or meal preparation • Laundry and/or housecleaning • Bill paying and/or other financial responsibilities • Social and recreational activities.	*Functional dependency* is the inability to attend to one or more of one's own needs (Filner and Williams, 1981).
	• The needs include ambulation, eating, meal preparation, personal hygiene, shopping, laundry and other household cleaning tasks, bill paying and other financial obligations, and social and recreational activities.
Overhead: Determinants of Dependency • *Physical immobility* and *mental confusion* are the main determinants of dependency. • These conditions can often be prevented, reversed, or reduced.	• The main determinants of dependency are physical immobility and mental confusion -- which can often be prevented, reversed, or reduced.
	• Elderly people can become confused under a variety of circumstances, such as due to : - Infection. - Drug interaction. - Self medication -- forgot to take medicine yesterday, so doubled today's dosage. - Getting up too fast. - Overstimulating or stressful conditions, e.g., crowds.
Overhead: External Determinants of Dependency Insufficient support services, e.g., lack of transportation and fear of crime, can parallel chronic physical conditions in creating constraints on mobility.	• Dependency may also be the result of external factors -- lack of transportation or fear of victimization by crime can be just as restricting to movement outside the home as severe arthritis.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (90 minutes)	HEALTH PROMOTION: CONCEPTUAL FRAMEWORK

3. Define the concepts of health, wellness, and health promotion as they apply to aging cohorts.

Overhead: Cartoon

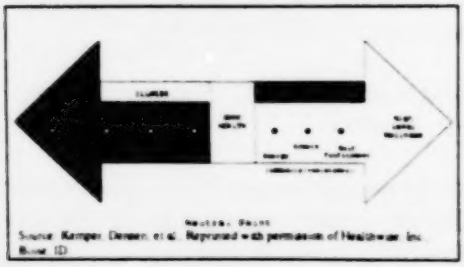
Activity. Group Discussion (15 min.):

Use flipchart to record participants' responses to 2 Questions for Discussion.

Questions for Discussion:

- What is your definition/concept of health promotion?
- How does your definition of health promotion apply to older adults?

Overhead: The Health Continuum



Most people view *health* as the absence of disease:

- So, if they have no symptoms of illness and no known disability, they feel they are in good health.
- Using such a perspective, the best people hope for is freedom from illness.
- But freedom from illness can actually be viewed as a neutral state.
- In general, health promotion stresses a more positive view of health that emphasizes actions -- walk more, eat better, relax more, interact socially, etc. -- to promote wellness.
- *Wellness* extends beyond the consideration of physical symptomatology to quality-of-life considerations, such as levels of energy, life satisfaction, and resistance to disease.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Health Promotion and the Compression of Morbidity Health Promotion for the Older Adult can target: • Reducing/compressing morbidity. • Preventing premature mortality.	Fries and others have theorized a fixed lifespan, whereby people could live to age 80-90 in good health, then die rapidly from "natural" causes (see the section on Biology of Aging in the *Aging: Demography, Biology, and Epidemiology* Module for an expanded discussion of these theories). • The related concept of "compression of morbidity" means that illness could be concentrated into a relatively short period at the end of life. • In this regard, the objective of health promotion activities for the elderly is to compress morbidity. • Health promotion/disease prevention efforts for the aging cannot realistically prevent mortality, per se, but they can reduce/compress morbidity and prevent premature mortality.
Overhead: Health Promotion and the Well Elderly • Prevent functional dependence. • Support/enhance functional independence.	Health promotion efforts can be targeted to both the well elderly and those who are frail. For the well elderly, health promotion efforts should be aimed at preventing functional dependence, or, put another way -- should support and enhance functional independence.
Overhead: Health Promotion and the Frail Elderly • Reduce functional dependency • Prevent further functional restrictions	For those already ill, health promotion should mitigate the impact of partial dependency and/or forestall total dependency. • It is important to keep in mind that health promotion is not just for the physically/mentally robust. • In contrast to the focus for younger people -- prevention before the development of disease -- health promotion for the elderly often has to deal with existing chronic disease(s). • So health promotion for the frail elderly has to be aimed at reducing the dependency imposed by chronic condition(s) and at preventing further functional restrictions.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

The term *health promotion* can be used to cover narrowly defined objectives or a very broad perspective.

- Narrowly defined, health promotion refers only to lifestyle modifications (which tends to place the burden of responsibility for good health squarely, and solely, on the shoulders of each individual).

Overhead: Broad Perspective of Health Promotion Objectives

- Health promotion
- Disease prevention
- Health maintenance

- A broader definition of the objectives of health promotion efforts encompasses:
  - Health promotion.
  - Disease prevention.
  - Health maintenance.

- The 1979 *Healthy People* report took the broader view, using three categories -- prevention, protection, and promotion:
  - *Disease prevention* includes strategies to maintain and to improve health through medical care.
  - *Health protection* includes strategies for modifying environmental and social-structural health risks.
  - *Health promotion* includes strategies for modifying lifestyle risk factors to good health.

Overhead: Public Health Perspective

- Disease prevention -- maintain/improve health through medical care.
- Health protection -- modify environmental and social-structural health risks.
- Health promotion -- modify lifestyle risk factors to good health.

Overhead: Etiologic Agents of Functional Dependency

To maintain quality of life for the elderly, one has to understand the etiology of functional dependence and also the opportunities for effective intervention through health promotion efforts.

Filner and Williams point to three general etiologic agents of functional dependency (Filner and Williams, 1981):

- Physical health risk factors:
  - Fractures
  - Malnutrition
  - Senility
  - Adverse drug effects
- Mental health risk factors:
  - Social isolation
  - Stress
  - Depression
- Socioeconomic health risk factors:
  - Poverty
  - Housing
  - Transportation

- *Physical health* risk factors, particularly fractures, malnutrition, dementia/confusion, and adverse drug effects.
- *Mental health* risk factors, such as social isolation, stress, and depression.
- *Socioeconomic health* risk factors, including poverty, housing, and transportation.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Handout: Risk Factors Associated with Dependency	• Physical and mental well-being are closely related, and each can significantly impact the other. • Both physical and mental well-being are strongly influenced by socioeconomic conditions.
Activity. Brainstorm Role of Public Health (30 min.): Use flipchart to record responses to 3 Questions for Discussion.	Questions for Discussion: • What is the current role of health departments with respect to health promotion services for the older population? • How do these health promotion programs for older people differ from the programs for other populations, such as women and infant children? • What are, or should be, the future priorities of health departments in terms of health promotion for older adults?

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

ACTIVITY/LECTURE (120 minutes)

4. Discuss and apply the principles of planning, implementing, and evaluating health promotion programs.

Overhead: Health Promotion Program Steps

- Conduct needs assessment.
- Establish program goals/objectives.
- Design program implementation strategies.
- Secure funding.
- Perform program evaluation.

Activity: Small Group Session (30 min.):

The participants will break into groups of 4-6 members, each, to apply the 5 steps for setting up Health Promotion Programs to specific topics.

- Three health promotion areas, consistent with the initiative to limit functional dependency of elders and popular with health departments or other aging-related agencies, have been chosen for discussion. The three topics are:
  - Nutrition.
  - Injury Prevention.
  - Exercise.

  Depending upon the total number of participants, there may be more than one group discussing each topic.

THE PRINCIPLES OF PROGRAM PLANNING, IMPLEMENTATION, AND EVALUATION

There are several steps one can take to ensure successful programming. These steps apply to planning, implementation, and evaluation.

Steps to set up a Health Promotion Program:

1. Conduct a needs assessment.
2. Establish program goals and objectives based on needs assessment findings.
3. Design program strategies for implementation of program.
4. Obtain funding for the program.
5. Perform on-going evaluation of the project, and undertake mid-course adjustments based upon evaluation findings.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
• Each group will be given an overview of the assigned health area, and some questions to act as triggers while completing the steps for a model program.	Nutrition: Overview and Questions -or- Injury Prevention: Overview and Questions -or- Exercise: Overview and Questions
For each group, give one copy of the Overview and Questions for the groups' topic to every group member (e.g., Group A participants get the Nutrition handout; Group B participants get the Injury Prevention handout; Group C participants get the Exercise handout.	
Direct each group to pick a "recorder/presenter" to represent the group. This person will use the form provided to capture his/her group's comments.	
Give a copy of the Recording Form to each recorder/presenter.	Recording Form: A Five-Step Approach to Designing a Successful Health Promotion Program.
Each group is to spend approximately 30 minutes designing a health promotion program in their assigned area using the five-step approach outlined in the Recording Form.	Design of a health promotion program using topic area assigned to each group.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Activity. Wrap-Up Session (30 min.):

Use a flipchart to record each group's presentation or the completed Recording Forms from each group can be used as overheads during the 30-minute Wrap-Up Session. It is also possible to duplicate the completed Recording Forms for distribution to all participants.

- The "recorder/presenter" for each group will summarize group activities (10 minutes each).
- To avoid repetitious presentations, each group should be asked to concentrate on (1 or 2) different steps of the overall process.

Overhead: Researching the Problem at the National Level

- Journals of:
  - Pharmacy
  - Medicine
  - Gerontology/Geriatrics
- Federal agencies:
  - Food and Drug Administration (FDA)
  - National Institute on Aging (NIA)
  - National Center for Health Statistics (NCHS)
- Pyramid-related programs

Case Study Presentation of a Health Promotion Program that Used the Model Approach

In 1977, the San Francisco Department of Public Health established a health promotion program for elderly residents.

The Senior Medication Education Program successfully employed the five-step approach to establish a program that diminished misuse of medications by senior citizens (Eng, 1982).

As a practical matter, health professionals need to know that there are many sources of relevant information that they can obtain, which will help orient their program initiatives.

As part of their *needs assessment*, the San Francisco Department of Public Health researched the problem of medication misuse by seeking national level information from:

- Articles on medication misuse among the elderly, as published in pharmacy, medical, and gerontological journals.
- Federal agencies:
  - Food and Drug Administration.
  - National Institute on Aging.
  - National Center for Health Statistics.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• Programs referred by Pyramid, the national information-sharing network for drug abuse prevention programs, funded by the National Institute on Drug Abuse (NIDA).
Overhead: Design Considerations Design programs to meet the unique needs of well-defined populations and their relationship to: • The health information to be emphasized. • The sponsoring organization.	Health promotion programs have to be designed to meet the unique needs of target populations, not just the interests and abilities of program staff. • Recruitment tactics, promotional materials, curriculum content, and evaluation scope should all be shaped by consideration of the target population's: - Age range. - Health profile. - Needs. - Ethnic, cultural, and religious background. - Socio-economic status. - Educational profile. • The target population's receptivity to new ideas that might be presented, as well as their willingness to participate in the health promotion program, should be gauged during the early phase of planning. Early planning should include strategies/ incentives to enhance participation. • It is also important to consider the target population's relationship to the sponsoring organization. - For example, if the target population has had a historically hostile relationship with the funded organization, it may not be possible to overcome entrenched resistance, and valuable resources would be virtually wasted unless some other program-sponsorship arrangement could be developed. - Additionally, if the target population has been largely isolated from the mainstream of public services due to sociocultural differences, it may be advisable to develop a program that relies heavily upon the incorporation of the group's traditional values and its recognized leadership to promote interest.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- It is important to recognize that members of any target group -- however disabled, poor, isolated, well-educated, or healthy they may be -- have unique contributions to make in terms of experience, skills, and knowledge. The program design must take into account these aspects of the target population as well (Fall Creek, Warner-Reitz, Mettler, 1986).

To determine needs at the local level, the San Francisco Department of Public Health collected information from three types of sources:

Overhead: Local Information Resources

- Retired Senior Volunteer Programs
- Visiting Home Nurses
- Senior Centers
- Gray Panthers
- On Lok Senior Health Services
- Bay Area Pharmacists Association
- San Francisco Commission on Aging

- Local entities, such as:
  - Retired Senior Volunteer Programs.
  - Visiting Home Nurses.
  - Senior Centers.
  - Gray Panthers.
  - On Lok Senior Health Services.
  - Bay Area Pharmacists Association.
  - San Francisco Commission on Aging.
- Reports, such as (i) the 1970 Census and (ii) files maintained by local agencies.
- Discussions with local individuals who had first-hand knowledge of medication-related problems, including:
  - Pharmacists.
  - Physicians.
  - Emergency Department Medical Staff.
  - Senior Center Staff.
  - Senior Citizens.

Overhead: Knowledgable Individuals

- Pharmacists
- Physicians
- Emergency Department Staff
- Senior Center Staff
- Senior Citizens

A survey of local services (e.g., community clinics, the visiting nurse service, senior centers, and day care facilities) can provide valuable information about the health needs and concerns of the community's elderly and their use of existing services. Providers can also help identify gaps in the existing services that might be addressed by a health promotion program, as well as suggest potential community resources, such as funding, supportive practitioners, and possible site volunteers.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Handout: Sample Questionnaires

- Pharmacists Questionnaire
- Senior Citizens Questionnaire
- Senior Agencies and Organizations Questionnaire
- Physicians Questionnaire

- In order to *assess the community and target audience*, the Senior Medication Education Program (SRx) developed questionnaires for four distinct target groups:
  - Pharmacists.
  - Senior Citizens.
  - Senior Agencies and Organizations.
  - Physicians.

These questionnaires were designed to gather information that would determine how a program should be designed and what population should be targeted for programming activities.

The responses to the various questionnaires permitted health department personnel to isolate the risk factors for misuse of medication by the elderly.

- The questionnaire responses formed the basis for an *inventory of behaviors related to the problem* of misused medication.

Handout: Behaviors Related to the Medication Misuse Problem

- For example, seniors answered that they seldom asked for information from their physicians.
- Program developers rated this behavior as a highly important contributor to the problem, but saw the potential for change as low since senior respondents appeared to be intimidated by their physicians.

Overhead: Behavior in Senior Consumers

Behavior	Importance	Potential for Change
Behavior in Senior Consumers		
Failure to seek medical and medication information from physicians	High	Low
Failure to seek medical and medication information from pharmacists	High	Medium
Failure to understand medical and medication information	High	Medium
Non compliance with prescribed medicines	High	Medium
Inappropriate self medicating with OTC drugs	High	Medium
Seeing more than one physician without other physicians' knowledge	High	Low
Exchanging or using outdated medications	Medium	Medium
Using more than one pharmacist or pharmacy	Medium	Medium

Source: Eng, 1982

- Based upon the identification of behaviors causing the problem, program developers felt the potential to alter physician prescribing behavior was low, and therefore decided to concentrate their program activities on the elderly and on pharmacists, as well as other health care providers.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead: Assumptions that Shaped Early Planning Efforts

- Medication misuse by seniors is partly due to the elderly not participating in their own health care.
- The elderly will actively participate in their own health care if given an opportunity and sufficient support.
- Although underutilized, pharmacists/pharmacies can be valuable health resources.
- Medication misuse can be reduced through enhanced senior-pharmacist communication.
- Service providers see misuse of medication as a problem; they would use new methods for patient education.
- Responsibility for prevention of medication misuse should be shared by all health care providers.
- Financial commitment of public institutions is necessary for new programs.

As a result of the review of national and local data, as well as the analysis of questionnaire responses, program personnel formulated a range of assumptions that were used to establish and prioritize program goals and objectives.

The assumptions that shaped program planning were:

- Misuse of medication by the elderly is partially the result of the fact that the elderly often do not actively participate in their own health care.
- The elderly are generally concerned about their own health. Given the opportunity and support, the elderly will take an active role in their own health care.
- Pharmacists (and pharmacies) can serve as valuable health care and education resources. Although they are accessible and visible to the elderly, they have been seriously underutilized in most communities.
- The incidence of misuse of medication can be reduced through improved communication between seniors and pharmacists, particularly at the point of purchase.
- Those who provide services to the elderly consider misuse of medication as a serious problem, and they are interested in using new education methods to reduce the problem.
- It is the responsibility of all health care providers to prevent misuse of medications by the elderly.
- Innovative public programs require financial commitment by public institutions.

Overhead: Program Goals

- *Improved health of seniors* through preventive education focused on safe medication use.
- *Increased awareness of misuse problem* through inclusion of preventive education in general services to the elderly.

The program established two major *goals* as long-range statements of the program's intent:

- To improve the health of senior citizens in San Francisco through a preventive education program aimed at the safe and rational use of medicines.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• To increase health professionals' awareness of the medication misuse problem and to support the inclusion of preventive geriatric drug education as a vital component of general services to the elderly among local, state, and national providers.
	The program also determined several specific *objectives*:
	• To increase the active role of senior consumers in bringing about positive changes in their health care through direct preventive drug education services.
	• To motivate community pharmacists, and to involve them in providing patient-oriented medication education services to elderly consumers at the pharmacy site.
	• To increase, through three workshops, the skill, knowledge, and the supportive role of health providers who serve the elderly.
	• To develop long-term support and maintenance of the program's philosophy and activities by integrating program components into a stable public institution.
	The Department of Health formed a committee (comprised of Department staff, health educators, senior citizens, and pharmacists) to develop the educational *strategies and activities* that would be used.
	The committee decided to focus on the community pharmacist as a mechanism for promoting drug education.
Overhead: Program Activities • Continuing education workshops for pharmacists and other health providers. • Senior Health and Drug Information Centers. • Clerkship program. • Direct education of seniors.	Core activities included: • Continuing education workshops for pharmacists (and other professionals) aimed at increasing (i) awareness of the medication-related problems of the elderly, and (ii) the health care providers' abilities to positively influence the drug-taking behaviors of the elderly. • Creation of Senior Health and Drug Information Centers at pharmacy locations.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• Collaboration with the University School of Pharmacy to establish a clerkship program for fourth-year students, who helped staff the Information Centers. • Direct education of senior citizens to encourage their active involvement in ensuring their own health. The continuing education workshops for professionals were all-day conferences that offered continuing education credits. • Workshop costs were kept to a minimum by enlisting donations and support from local facilities/agencies, such as hospitals, long-term nursing facilities, and the local Commission on Aging. • Program staff spent about 300 hours recruiting participants and presenters, and producing program materials.
Overhead: Suggested Strategies for Reducing Misuse of Medication • More education through professional associations. • Assertiveness and self-help workshops for the elderly, led by peer counselors. • Education for relatives of the elderly. • Training for board-and-care home operators. • Appropriate dosage guidelines for physician use. • Therapy guidelines that encourage communication among various care practitioners.	• Conference participants discussed how they could impact medication misuse, coming up with such suggestions as: - More education for professionals through pharmacy and medical societies. - Workshops for the elderly, focusing on assertiveness and self-help techniques, conducted by senior peer counselors. - Education for relatives of the elderly. - Training on medication issues for operators of board-and-care homes. - Distribution of appropriate dosage guidelines to physicians who treat the elderly. - Comprehensive therapy guidelines for physicians with geriatric patients to encourage their communication with other health care providers.

The planning committee assumed that community pharmacists could play a central role in preventing geriatric medication misuse if the program could:

- **Create awareness.**
- **Build skills.**
- **Provide educational resources in order to change professional practices that limit the pharmacist's effectiveness as an educator.**

The Senior Health and Drug Information Center concept developed as a vehicle to establish the community pharmacy as the locus of health and drug education activities.

- Initially 12 centers were started. Selection of locations was based on interviews with pharmacists, using the following criteria:
  - Location and accessibility of the pharmacies to concentrations of the elderly population.
  - Pharmacists' commitment to the program and to patient education.
  - Pharmacists' willingness to participate in the program's evaluation process.
- The SRx planning committee expanded to include the participating pharmacists:
  - This inclusion of the pharmacists, together with other on-going evaluation activities, provided valuable information that permitted mid-course adjustments to the original program design.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Positive Factors Affecting Pharmacists' Potential Success as Patient Educators • Professional job satisfaction • Pending legislation mandating patient education • Promotional advantage to increase sales volume • Improved community image as skilled professionals	- The committee looked at the barriers, as well as the inducements, to effective use of pharmacists as educators. - Positive factors included: job satisfaction, legislation mandating patient education, potential for increased sales, and improved professional image.
Overhead: Barriers to Pharmacists as Patient Educators • Insufficient time to: - Consult with patients - Sponsor health education activities - Use patient profiles or develop drug-monitoring systems • Lack of compensation for consultation services • Lack of space for consultation activities • Lack of health education skills or support • Resistance from physicians	- Barriers included insufficient time, no compensation for consultation services and insufficient physical space to conduct private consultations, lack of education skills, and perceived resistance from physicians.
Overhead: Support Activities for Center Operations • Formal contracts between SRx and the Centers • Guidelines for pharmacist-senior consultants • One-page consumer drug information handouts on 10 commonly prescribed drugs and five over-the-counter products • Over-the-counter information signs on the pharmacy shelves • Health education displays on hypertension, arthritis, safe and rational drug use, diabetes, dual use of Western and Eastern medicines • Periodic review by staff of patient medication profiles • Health screenings (hypertension, diabetes, dental) • Medication profiles	- To enhance Information Center operations, the program developed specific remedies as a result of the on-going evaluation, including: -- Formal contracts between SRx and the Centers. -- Guidelines for pharmacist-senior consultants. -- One-page consumer drug information handouts on 10 commonly prescribed drugs and five over-the-counter products, printed in English, Tagalog, Chinese, and Italian. -- Over-the-counter information signs on the pharmacy shelves. -- Health education displays on hypertension, arthritis, safe and rational drug use, diabetes, and dual use of Western and Eastern medicines (since these centers were dealing with a large Asian population).

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	-- Periodic review by staff of patient medication profiles. -- Periodic on-site health screenings (hypertension, diabetes, dental). -- Medication profiles.
Overhead: Attracting Funding • Community support enhances a program's chances for funding. • Use needs-assessment data to make a stronger case for program development. • Private foundations support innovative programs with strong potential of future continuance (support) by public institutions.	Throughout the early planning, *funding* was a crucial concern. SRx staff recognized that the growing trend of budget cuts meant the program had to be a merger of public and private resources in order to get established and grow. • The first-year budget of $25,000 (1977) came from grants awarded by private foundations -- the Zellerbach Family Fund and the Van Loben Sels Charitable Foundation. It was enough to support two 1/2-time health educators and one 1/4-time clerk-typist. • Initially, the San Francisco Department of Public Health provided only in-kind support, although it subsequently has provided financial support equal to about 1/2 of the annual budget (which exceeded $56,000 by the early 1980s). • Many private foundations will provide seed money if there is potential for the program to be sustained by public institutions. • SRx began by organizing community support for the program, since such support enhances a program's chances for attracting funding. • Use the information collected during the needs assessment to support the desirability of the proposed program.
Overhead: Sources of Funding • Government grants • Private foundations • Churches and synagogues • Individual and/or corporate donors • Fee-for-service • Fund-raising events	There are a variety of ways in which to finance a program. Sources of funding include: • Government grants. • Private foundations. • Churches and synagogues.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• Individual and/or corporate donors. • Clients paying for services (although this approach should carefully be weighed: fee-for-service may increase participant compliance since some people only value what they pay for; on the other hand, some of the individuals who can most benefit from health promotion/disease prevention services are those who can least afford to pay for them). • Fund-raising events. When funding is limited, program planners must utilize and coordinate existing community resources in creative ways to provide health promotion programs at minimal cost.
Activity. Group Discussion: (5-10 minutes): Record participant responses to Question for Discussion on a flipchart.	Question for Discussion: What community resources have you successfully/creatively used at minimal cost for health promotion programs?
Overhead: Community Resources • Hospitals • Nursing homes • Colleges/universities • Parks and Recreation Departments • Health associations • Media • Peers	Community resources include: • Hospitals. • Nursing homes. • Colleges/universities. • Parks and Recreation Departments. • Local chapters of health associations. • Media, for publicity. • Peers.
Overhead: Data Collection Target Population / Evaluation Method Seniors: • Written pre-/post-tests on attitudes and behaviors; • Surveys of participant satisfaction with mini-classes Pharmacists: • Analysis of Information Centers' documentation (monthly) of number of consultations and other educational efforts; • Questionnaires to ascertain pharmacists' perceptions of program success	The SRx program performed data collection and analysis for evaluation purposes from the beginning. Three basic methods were used to collect information: • Survey instruments. • Observation. • Interviews and informal verbal feedback. For example, senior consumers' attitudes and behaviors were measured by pre- and post-tests at 4 Information Centers.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

The post-tests showed:

- An increase in consumer awareness -- more seniors reported comparing drug prices prior to buying, and also asking about pharmacy services.
- An increase in senior assertiveness in monitoring their own health by soliciting information and instructions from pharmacists and physicians.
- The number of elderly who said they "often" asked their physicians questions about the drugs they were taking increased from 20% in the pre-test to 43% in the post-test.

Overhead: Value of Program Evaluation

- Factual basis for altering program strategies and directing the expansion of program initiatives.
- Data can be used for marketing and funding efforts.

Program evaluation is a meaningful activity for program operation for several reasons:

- The evaluation provides a documented foundation for decision-making to alter program strategies -- either to add, delete, or shift the emphasis of on-going activities.
- The information compiled for program evaluation purposes can prove invaluable for marketing one's services and for soliciting funding.
  - For example, one health promotion project for seniors videotaped participants as they responded to evaluation questions.
  - The project staff discovered that this group preferred to talk about their reactions, rather than to provide written responses.
  - The enthusiasm and the testimonials of program participants, as they were captured on film, has proved very persuasive.
  - The videotape has been successfully used to approach city and state officials to market and solicit funding for the program.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (30 minutes) 5. Describe several model health promotion programs.	**BEST PRACTICES: CONSIDERATION OF EXISTING PROGRAMS** There are many excellent health promotion programs for the elderly. • While there are a variety of programs that could be examined, three were selected that have achieved national recognition. • For those who are considering the development of materials, these existing programs may serve as models to guide in-house initiatives.
Handout: Program Overviews for: • Stay Well • Growing Younger/Growing Wiser • Staying Healthy After Fifty	• The three health promotion programs for older adults are: - Stay Well. - Growing Younger/Growing Wiser. - Staying Healthy After Fifty (SHAF). Stay Well is a comprehensive health promotion program under the auspices of the New York City Department of Aging. • Stay Well was initiated in response to national evidence that many chronic conditions are linked to lifestyle, and are amenable to change. • The program is currently conducted at 67 senior centers. • It evolved out of an earlier (1980) health promotion initiative, the Department of Aging's Senior Volunteer Hypertension Training Program, which supported the idea that older people can take charge of their own health management. • The earlier program included a pioneering approach: the Department trained older adults to conduct bi-monthly hypertension screening and monitoring sessions, not only to manage their own blood pressure, but also that of their peers.
Overhead: Stay Well -- Pivotal Concepts • Older people can take charge of their own health management. • Use of older peer volunteers as the health program delivery system.	• Many Stay Well activities and concepts are widely known and used by health promotion practitioners -- when the program was originally developed, program founders not only reviewed applicable literature, but also called upon the expertise of the New York Academy of Medicine.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead: Four Components of the Stay Well Program

- Health Education Course
- Senior Volunteer Training Program
- Volunteer-Led Activities
- Mini-Courses and Special Events

The Stay Well model has four major components:

- *The Health Education Course*, which is the vehicle for direct education of senior citizens on a variety of health promotion topics, addressing both the physical and psycho-social aspects of aging. Topics include:

  - Personal health goals/communicating with health care professionals.
  - Home safety.
  - Medication management.
  - Hypertension.
  - Diabetes.
  - Cancer.
  - Arthritis.
  - Oral health.
  - Foot care.
  - Grief and loss.
  - Sexuality.
  - Vision.
  - Hearing.
  - Nutrition.
  - You're in charge -- directions for the future.

- *The Senior Volunteer Training Program* recruits and trains peer volunteers from the Health Education Course to serve as leaders for walking clubs, exercise classes, stress management groups, and health forums.

- *The Coordination/Administration of Volunteer-Led Activities* -- a Departmental staff member acts as a coordinator to oversee and support peer volunteer activities, as well as to promote linkages among community health agencies.

- *Mini-Courses and Special Events* are designed to motivate the non-participating senior at centers where the Stay Well Program is operating effectively and/or to stimulate interest in health promotion activities at sites that have not yet organized health and wellness programming.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Overhead: Key Features • Use of senior center locations • Mobilizing health agencies/ practitioners to volunteer their services at low or no cost. • Senior peer counselors/volunteers.	Program proponents believe there are three key features that help make Stay Well cost-effective and relatively simple to implement. These three elements promote high involvement and a sense of "ownership" on the part of the elderly, both as participants and as volunteer leaders. They are: • Using the senior centers as a means to reach a large number of healthy elderly in the community, and as a base for continuity of services. • Mobilizing and organizing the resources of the community's voluntary health agencies and health professionals to offer, without charge, such services as health course presentations, forums, and special health events. • Training senior volunteers to lead group activities for their peers. This has a substantial "ripple effect" as more and more older people are recruited, trained, and involved with health activities on a regular basis. The Growing Younger/Growing Wiser Program has been evolving since the early 1980's, under development by Healthwise, Inc., a nonprofit Boise, Idaho, corporation that conducts research and demonstration projects on healthy aging. • These programs have been used by a variety of agencies and organizations, nationwide, and have received acclaim from the American Society on Aging, the U.S. Department of Health and Human Services, the Centers for Disease Control, and others. • The programs are based upon two sets of workshops, each intended to promote a positive image of aging that will lead to a sense of individual empowerment and control.
Overhead: Growing Younger Workshops • Fitness • Nutrition • Stress Management • Medical Self-Care	• The Growing Younger program encompasses four 2-hour workshops designed to build participants' understanding, motivation, and confidence to achieve the health improvements they most want to make. Topics include: - Fitness -- how to improve flexibility, strength, and endurance to continue doing the things one most enjoys. - Nutrition -- how to gradually improve diet without losing the joy of eating.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	- Stress management -- how to relieve muscle tension and avoid stress. - Medical self-care -- how to improve the quality of care received, both at home and from one's doctor.
Overhead: Evaluation Findings Improvements in: • Blood pressure • Weight control and body fat percentages • Cholesterol • Flexibility • Exercise	• Evaluations of the Growing Younger component, conducted six months after program participation, have demonstrated improvements in: - Blood pressure. - Weight control and body fat percentages. - Cholesterol. - Flexibility. - Exercise.
Overhead: Growing Wiser Workshops • Memory • Mental alertness • Loss and life change • Choices for living	• The Growing Wiser program also entails four workshops, including: - Memory -- how to improve it; how to protect it; combatting forgetfulness; and recognizing the changes in memory that lead to greater wisdom. - Mental alertness -- maintaining mental vitality; medicine management; self-care for the blues; and the link between mind and body. - Loss and life change -- coping with crisis; helping others at a time of life change; and the relationship between wisdom and loss. - Choices for living -- maintaining independence; assertiveness; exploring options for greater personal freedom; and controlling decisions that affect one and one's environment. • Evaluation of the Growing Wiser program, which is newer than Growing Younger, is under way. - Preliminary results have shown improvements in memory. - Outcomes for depression scales and health status are also expected to reflect improvements.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	The Staying Healthy After Fifty (SHAF) program is a result of the collaborative efforts of: • American Association of Retired Persons • American Red Cross • Dartmouth Institute for Better Health.
Overhead: SHAF Focus • Enhance seniors' knowledge of: - Good health practices - Available community services and health care resources. • Development of healthy lifestyle skills.	The SHAF program is focused on enabling older persons to maintain their capacity for independent living through: • Acquired knowledge of good health practices, as well as awareness of available community services and health care resources. • Development of skills to maintain healthy lifestyle.
Overhead: SHAF Health Education Course • Health care • Health problems • Emergencies • Medications • Common health conditions • Chronic conditions • Lifestyle • Exercise • Nutrition • Emotional well-being • Being a wise consumer • Self-care contract	• The health education course consists of 11 two-hour sessions on the following topics: - Health care. - Health problems. - Emergencies. - Medications. - Common health conditions. - Chronic conditions. - Lifestyle. - Exercise. - Nutrition. - Emotional well-being. - Being a wise consumer. - Self-care contract.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (60 minutes) 6. Detail crucial factors to consider when developing health promotion strategies	**SPECIAL CONSIDERATIONS FOR DEVELOPING HEALTH PROMOTION STRATEGIES** Key Elements of Success The Kaiser Foundation commissioned an evaluation to see what key components several well-known health promotion programs had in common. The programs analyzed included the Grace Service Health Program in Chicago; Growing Younger, Growing Wiser, Boise, Idaho; Staying Healthy After Fifty, American Association of Retired Persons; Stay Well Program, New York City; Shepard's Centers Program, Kansas City, Kansas.
Overhead: Key Components to Successful Health Promotion Programs for Seniors • Needs assessment • Senior involvement in the design of the program • Multi-dimensional -- holistic • Highly participatory -- small groups • Recognize the social interaction needs of seniors • Fun • Upbeat message	The Kaiser study determined that these programs relied upon several similar strategies, which proved effective: • Needs assessments were performed to determine the appropriate focus for program activities: - These assessments have been both formal and informal. - In terms of practical advice for conducting needs assessments: -- Go where seniors are -- look and listen, and also chat informally. -- Hold focus group sessions with key constituencies. • Senior involvement in program design: - Successful programs have incorporated senior advisory committees. - Seniors on these committees have been hand-picked to represent key constituent groups. - The point is to start off by setting the stage for ownership by the target audience. • Multi-dimensional -- these programs take a holistic approach to integrating a variety of topics relevant to the overall health and well-being of the individual.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- These programs actively involve the program participants -- these are not lecture series:
  - They depend upon participant input.
  - They highlight learning by doing.
  - Often, they offer tangible symbols of participation, such as certificates and/or award ceremonies.
  - The programs set up the expectation that participants are important; that they must, and will, make valuable contributions.
- The programs build support networks through encouraging small-group formations -- the programs use buddy systems, contracts, etc. to promote friendship building.
- The programs are designed to be enjoyable -- they actively incorporate pleasurable experiences/exchanges and humor.
- Underlying the programs' foundation is an upbeat message -- WELLNESS.
  - They do not seek to promote healthful behavior by threatening all sorts of negative fallout from failure to comply; (although information must be balanced to realistically inform people of possible adverse consequences; e.g., what is a likely outcome of failure to control high cholesterol levels).
  - The message is positive, oriented toward building the self-esteem of the participant, and enpowering the individual to actively take control; e.g., "just being here is a positive step in the right direction."

Activity. <u>Vision of Aging (5-10 minutes)</u>:

- Ask participants to give short (1-2 word) descriptions of their vision of aging or of older adults.
- List responses on a flipchart.

Question for Discussion:

Using a few words as a descriptor, how would you summarize your vision of aging (or of older adults)?

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- Successful programs typically present a positive vision of aging.

  - They undercut the"naysayers" by debunking stereotypic images of aging, such as:

    -- Senile.
    -- Isolated.
    -- Frail.
    -- Dependent.
    -- Incompetent.
    -- Institutionalized.

  - Instead, they are "yeasayers", supporting positive visions of older people:

    -- Wise (the sage).
    -- Experienced; talented.
    -- Adaptable; have already negotiated lots of changes.
    -- Aging with grace.
    -- Proven coping abilities.
    -- Individualists; know what they want.

  - The programs build in a "future" orientation -- enpowering older adults to take control of their lives and to plan for their futures in short-term and long-term increments.

  - The message typically is to be open to the possibilities; to be positive about the changes one anticipates or is already experiencing.

<u>Bringing Your Program on Line: Practical Considerations</u>

There are a number of components that factor into the overall success of a health promotion program, including such considerations as:

Overhead: Key Considerations

- Sponsorship
- Community networking
- Staffing
- Budget
- Public relations
- Recruitment

- *Sponsorship* -- the degree to which your own agency/organization will support the initiative.

- *Community networking* -- how strong and how positive are your linkages to the community, to relevant grass roots organizations, etc.? Will the community "buy in" to your program approach?

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- *Staffing* -- the extent to which this program requires an individual effort or a team effort with well-defined and well-integrated roles, and the activities that must be supported to ensure appropriate personnel as program needs evolve.

- *Budget* -- the level of financing, as well as in-kind and other available resources.

- *Public Relations* -- the extent to which the program can be promoted to create favorable awareness and participation, before, during, and after program implementation.

- *Recruitment* -- the variety of outreach activities designed to attract individual and group support and participation.

Handout: Practical Considerations for Program Implementation

For each of these practical considerations, program developers should clearly assess barriers, as well as keys, to success.

In terms of public relations, there are several strategies that have proved beneficial for existing programs (Mettler and Kemper, 1989):

Overhead: Public Relations Strategies

- In-person contact
- Establish information requirements
- Develop long-term rapport
- Follow up
- Be newsworthy
- Be tenacious
- Show your appreciation

Source: Mettler and Kemper, 1989

- *In-person contact.* Identify key individual(s) as high up in the media organization as possible, e.g., a publisher or station manager. Visit them in person to make them aware that a newsworthy program will be debuting in the near future.

- *Establish information requirements.* Find out what the needs of the media are; e.g., deadlines, scheduling procedures, news slant. Then prepare press kits/packages that creatively present such information.

- *Develop long-term rapport.* As the program launch date approaches, call back your contact and ask how you can arrange the best coverage for the event. At that point, you may be referred to another person. Take the time to go visit with this new contact. Describe the program and, be enthusiastic about its news appeal.

  - Touch base with your contact periodically as the program evolves to keep him/her informed of program impact.

- Keep in mind that the news department is only one aspect of the media support you should cultivate. You will also want to establish good rapport with TV and radio public service coordinators, and possibly with the advertising department.

- *Follow up.* Even after advance arrangements for media coverage have been made, it may be advisable to call the day before, or the morning of, the event to confirm media coverage and to contact the individual who has actually been assigned to the story. Such extra effort may ensure that a news team is sent out.

- *Be newsworthy.* Typically, there are many stories competing for attention. You need to find the "creative angle" that will make your story worthwhile for the reporter or producer. Often, the key will lie in emphasizing the program's *benefits for local inhabitants and the community.*

- *Be tenacious.* If it's a "hot" news day, your event may get bumped by the late-breaking news that commands more attention.

  - Be mentally prepared for media "no shows."

  - Brush yourself off, and call your contact within a few days to enlist support for arranging new coverage.

  - See if you can get them to commit to future coverage -- the first workshop, the first graduation, etc.

- *Show your appreciation.* When a media contact helps promote your project, acknowledge his/her effort(s). The best thank you may be a letter of appreciation to the highest-level contact, together with a copy to the individual staff members who were helpful to you.

In addition to planning your program, you need to focus on planning and implementing publicity.

Handout: Publicity: Sample Plan and Procedure

- It's a good idea to graphically develop a timeline to record the various details that require your attention, as well as to track your progress.

- You may want to use the sample plan to guide your efforts.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Overhead: 7 Ps of Recruitment

- Planning
- Publicity and Public Relations
- Public Presentations
- Phone Calls
- Personal Contact
- Participants and Program Graduates
- Personal Commitment

Source: Mettler and Kemper, 1989

You also need to focus on recruitment strategies, especially the "7 Ps" of effective recruiting (Mettler and Kemper, 1989).

- *Planning* permits a well-organized campaign to ensure you have:
  - Accurately represented your well-developed program.
  - Identified and connected with the right people.
  - Targeted your publicity efforts appropriately.
  - Avoided last-minute surprises and headaches.
- *Publicity and public relations* create the product awareness that not only tells people of your existence, but heightens their interest in participating. Think in terms of both small-scale (press release to community "weekly") and large-scale (special television report) exposure.
- *Public presentations* at civic and professional organizations, as well as at social clubs and religious organizations, can make a major contribution to your recruitment drive.
  - The "personal touch" enhances the message; keep it short, to the point, and full of enthusiasm.
  - Use a slide show or videotape presentation -- a picture is worth a thousand words -- however, keep the presentation concise, because when you turn out the lights, you may lose contact with the audience.
  - If the program has been operating a while, take an enthusiastic graduate along to give a first-hand endorsement.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

- *Phone calls* are highly effective because they establish a direct connection between program staff and potential participants, although calls are time consuming.
  - Use phone calls selectively.
  - This approach is most effective if you have a clearly identified target group in a well-defined area (e.g., a neighborhood) or if you have a "waiting" list of people who have indicated strong interest.
- *Personal contact* really leaves an impression, and may even increase some sponsors' and participants' commitment to the program. It's often labor intensive to develop personal relationships, so when you do -- nourish them.
- *Participants and program graduates* contribute the strongest recruitment tool of all -- word of mouth.
  - Informally, they can share their enthusiasm with family, friends, neighbors; they may even be able to reach the more isolated aging members of the community.
  - Formally, they can assist at public presentations or during media coverage.
- *Personal commitment* is vital and it doesn't exist without you!
  - You know Murphy's Law:
    - -- Anything that can go wrong, will go wrong.
    - -- Things take longer than they do.
  - There will be a whole obstacle course of unexpected headaches despite the best planning, and the difference between success and failure may well be your persistence.

Activity. Self-Test and Discussion (25 minutes):

Handout: Appalachian Intelligence Test

- Hand out test; allow approximately 5 min. for participants to read it and respond if they can.
- Then ask Question for Discussion (20 min.).
- Use flipchart to record responses.

Question for Discussion:

What factors have to be considered when developing a health promotion program strategy for a minority/rural population?

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT

Since a variety of factors can enhance or obstruct the success of a health promotion strategy, it's crucial to consider what factors can affect either the effectiveness of the message and/or the dissemination techniques.

Several general principles apply:

- Social systems can support or undercut change.
- Community leaders and family members can facilitate and/or impede diffusion of a health care message.

Overhead: Use of Community/Family Members

Family members and community spokespersons can facilitate program effectiveness by promoting:

- Credibility
- Visibility
- Ownership
- Interactive communication
- Cultural sensitivity

- Involving the family and/or community members in the program (as early as in the planning phase) can strengthen the effort, by promoting:
  - Credibility and visibility of the program.
  - Acceptance and self-determination (ownership).
  - Two-way flow of information that creates greater awareness of the target community and the specialized aspects of its culture, particularly as reflected in the health beliefs and needs of the targeted audience.
- For the elderly, in general, and for minority and other subgroups of the aging, health programs should focus on the older person in the context of his or her family, neighborhood, and community because health behavior is strongly linked to the nature of a person's social supports (Minkler, 1981).
  - For example, a study in Texas found that materials written in "Tex-Mex" Spanish were not the best use of program funds.
  - The Spanish-speaking elderly who could not read English, also could not read the Spanish materials.
  - However, they elected to take the English brochures so that their children or grandchildren could read and translate the information for them.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• Determine who is already providing health care and health information within the community -- establish a linkage to avoid "turf" confrontations and to tap into existing communication networks.
Overhead: Use Existing Channels of Communication • Local health practitioners • Local lay and religious leadership • Local political and social organization leadership • Entertainment, sports, and media personalities • Print/media editors and reporters • Advocacy groups • Professional organizations	• Use existing channels of communication. - It may be helpful to solicit recognized community leaders as spokespersons. - Depending upon the nature of the program and the public relations strategy, such an approach might include: -- Local health practitioners. -- Local religious leadership, including lay leaders. -- Local political and/or social organization leaders. -- Local and/or national entertainment, sports, or media personalities. -- Local print or other media editors and/or reporters. -- Advocacy groups. -- Relevant professional organizations.
Overhead: Readiness to Take Action • Belief that one is susceptible. • Belief that condition can negatively affect one's life • Awareness that action is possible and can increase positive outcome	• Program planners need to assess whether the target population perceives a need to address the selected issue (i.e., do they feel susceptible to the condition or illness) and whether they are "ready" to take action. - Readiness to take action involves, among other things: -- Belief that one is susceptible to a condition or illness. -- Belief that the condition/illness could seriously, negatively impact one's life. -- Awareness that action is possible and that such action will diminish the liklihood of illness or diminish its severity. - If the target population either does not believe that they are at risk or that such a condition would seriously hamper the quality of their life, or if they do not see value in the proposed action plan (i.e., they don't think it will make a difference or they regard the proposed changes as more noxious than the possible condition/illness), then programming needs to start by addressing the belief system.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	-- For example, some subcultures perceive weight as a symbol of wealth; therefore, slenderness is not valued. -- Under such normative situations, weight loss and exercise programs have special obstacles to overcome. • Recognize cultural diversity -- belief systems regarding the cause or manifestation of disease may differ among minorities (and between minority and majority groups). - Many minority cultures support explanations of illness based upon fatalism, life balance, supernaturalism, preordained destiny, superstition, etc. In addition, cultural prescriptions for appropriate treatment/action vary from group to group. - Individuals, or groups, who adhere to culturally specific beliefs are less likely to seek out and act on directives that run counter to tradition, for example by emphasizing personal autonomy and self-determination. - It is, therefore, important to fit new health messages within the context of existing health beliefs and practices -- don't expect wholesale change. • Recognize that health status is not solely determined by individual behaviors (or beliefs) -- individuals should not be made to feel that they are being "blamed". - Nonbehavioral factors influencing health status include: -- Biological factors, such as genetic make-up and gender. -- Environmental hazards at work and at home. -- Social-structural considerations, such as poverty, inaccessibility of health care. - It is essential to recognize, and address, such contributions to poor health status so as not to appear to be "blaming the victim." • Shape the message within the demographic context of the community. Make no assumptions.... Assess: - The *level of education*, in terms of both reading skills and functional literacy.
Overhead: Demographic Considerations • Level of education • Level acculturation • Level of diffusion/acceptance of health information	

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	- The *level of acculturation* in terms of the degree to which the minority has adopted the beliefs and behaviors of the majority culture, and the extent to which it has retained its own unique identity. - The *level of diffusion* and *acceptance of existing health information*. For example: -- Rural versus urban living is associated with different issues related to health information and services. -- Evidence suggests that in rural areas there is greater reliance on, and belief in, folk remedies, which tend to be used in conjunction with mainstream health care, when available. -- Under such circumstances, acknowledging the use of folk medicine will facilitate the implementation and dissemination process.
Overhead: Factors Influencing Use of Innovative/New Information • Relative advantage • Compatibility • Complexity • "Trialability" • Observability	• Plan health promotion activities, particularly if they are innovative, as a phased approach -- not as an "all or nothing" proposition. Factors associated with individual/group willingness/ability to act upon new information include: - Relative advantage -- is the new information perceived as good as, or better than, existing beliefs or practices? - Compatibility -- is the new information consistent with existing beliefs/values, experiences, individualized/group needs? - Complexity -- is the recommended action difficult to understand or act upon? The more complex, the less likely to be followed. - "Trialability" -- is the new information amenable to trial for a limited time or a little at a time? - Observability -- are there visible results that can be directly associated with using the new information?

- In addition to involving the target population in planning and implementation of the health program, involve them in the evaluation, including pre-testing among community members for:

  - Impact.
  - Comprehension.
  - Relevance.
  - Believability.
  - Acceptability.
  - Language/dialect nuances.
  - Appropriate role models.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
LECTURE/DISCUSSION (60 minutes) 7. Discuss effective techniques for presenting health education. Overhead: Health Education • Health information/knowledge base. • Incentivation strategies for: - Healthful decision making - Risk factor modification - Incorporation of therapeutic routines - Avoidance of harmful practices.	HEALTH EDUCATION TECHNIQUES Health education, for any population, focuses on improving the individual's and/or community's awareness of attitudinal and behavioral lifestyle issues that have an impact on health status. • Is knowledge, alone, enough to motivate someone to engage in sound health practices? • Probably not... information is important, but since people's actions are influenced by many factors (such as a variety of conflicting messages and competing priorities), information, alone, may not be sufficient to motivate behavioral change. • Health education ideally provides a minimum level of information to permit individuals to undertake voluntary changes in behavior -- but that's only the beginning -- it must also include a strategic approach to motivate and support individuals in: - Making healthful decisions. - Modifying risk factors. - Incorporating therapeutic routines. - Resisting harmful practices. There is an increasing recognition by health professionals that health care must be a cooperative venture between the "client/patient" and the practitioner. • Such an approach represents a shift away from the traditional, authoritative medical model towards a more demedicalized approach to health care. • This type of approach emphasizes the need to activitate individuals as partners in their own care. • So, health education becomes not a one-way flow of predetermined information from the provider to the receiver, but is instead an interactive process. • Active participant involvement is promoted as a vehicle for increasing the individual's ability to make independent decisions about daily routines related to healthful behaviors.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	• Evidence suggests that a shift toward the partnership approach can be especially effective in the treatment of people who have multiple, chronic problems, such as the elderly (DiMatteo and DiNicola, 1982; Haynes, Sackett, and Taylor, 1980).
	In order to design a health promotion program for someone else, it may be helpful to examine what you personally look for in a program.
Activity: Brainstorm (15-20 minutes): Use a flipchart to record the group's responses to first one, then the other question.	Questions for Discussion: • Based upon your own experience, what constitutes bad training? • What constitutes good training?
Overhead: Ineffective Training • Limited interaction • No movement • No message/substance • Impractical • No humor • No reference to experience(s) • Not as advertised • Disorganized • No handouts	In designing your own programs, you want to avoid the pitfalls of ineffective training, such as: • Little or no interaction among participants. • No movement. • No message or substance. • Not practical. • No humor. • Does not share personal/professional experience(s). • Does not deliver what it promises -- material either doesn't live up to advertising or doesn't present topics announced in advance. • Disorganized presentations. • No handouts.
Overhead: Elements of Effective Training • Useful information that participants can apply. • Variety of training methods. • Acknowledges participants' expertise • Enthusiastic presentation.	Effective training, on the other hand: • Provides useful information, matched to participants' interests, needs, and abilities to apply the material. • Uses a variety of training methods/techniques. • Recognizes and builds upon the expertise in the group. • Presents a message enthusiastically.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
	Often, practitioners view health education as passing out leaflets or brochures, which is a very passive approach with a low liklihood of success in changing behaviors. Structured activities that permit older adults, as well as health care practitioners, to actively experience alternatives or options for behavioral change are often more effective. Special consideration should be given to sensory and mobility changes that frequently accompany aging.
Activity. Effective Presentation Techniques (15 minutes): Record responses to Question for Discussion on a flipchart as a 2-column listing -- one column for professionals; one for the elderly client.	Question for Discussion: What techniques have you found to be effective in presenting health education to health professionals or directly to the older adult?
	Techniques that might be used with health professionals include: • Prepare short and to-the-point presentations that take no more than 5-10 minutes (to counterbalance claims of busyness). • Enlist their active participation as part of the presentation. For example, when talking about nutrition, bring samples to taste; when talking about exercise, have them join you in performing exercises as you explain the purpose and benefits of each. • Clearly state what part you'd like them to play -- but be open to counter-offers. • Don't discount the helpfulness and clout of anyone in a health organization -- "chat up" receptionists, security people, etc., anyone who can help generate interest, support, and action.

INSTRUCTOR RESOURCE/ACTIVITY	CONTENT
Handout: Presentation Tips and Techniques	The program staff of Healthwise, Inc., have compiled a variety of generic tips on presenting health promotion programs for senior citizens (Mettler and Kemper, 1989). In addition, techniques that might be used for working with the elderly who have impairments include: • Redundant cuing. • Allowances for vision and hearing impairments. • Pacing of materials. • Directed discussions of the past experiences of participants that will permit individualization of programming built upon the acquired strengths and prior healthful coping strategies of the individual participants.
Handout: Resources for Health Promotion With Older Adults	In developing your own health promotion materials, there are a number of resources you can access.

IV. Overheads

Profile of Health Services Utilization Rates for 65+ Population

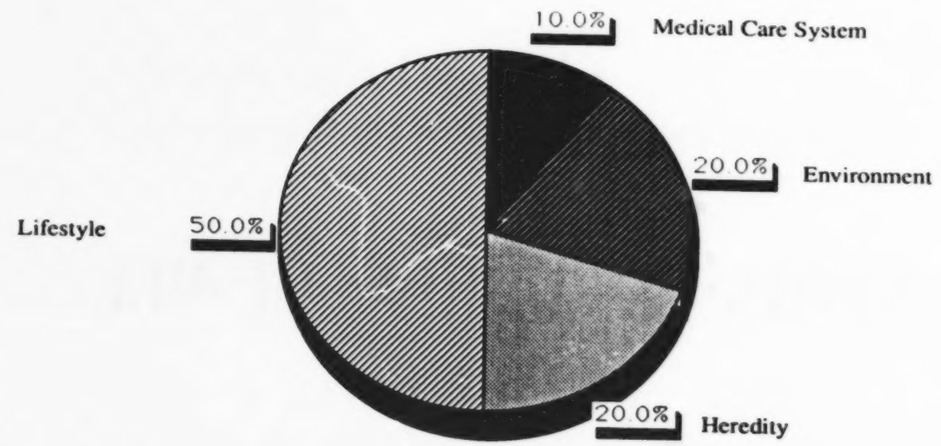
- 30% of $300B annual health budget.
- 90% of $75B annual nursing home budget.
- 40% of acute hospital bed occupancy days.
- 25% of all prescription drugs.
- 40% of over-the-counter drugs.
- 50% of physician-practitioner time.
- 25% more annual doctor visits.

Source: National Center for Health Statistics, 1984
Health Interview Survey Aging Supplement

Causes of Death

- Heart Disease
- Cancer
- Strokes
- Unintentional injuries
- Chronic obstructive lung disease
- Pneumonia and influenza
- Diabetes mellitus
- Suicide
- Chronic liver disease and cirrhosis
- Atherosclerosis

Factors That Influence an Individual's Chances of Surviving to Age 65



Source: Centers For Disease Control

The Framingham Study

Correlation between cardiovascular disease and risk factors of:

- Smoking
- Obesity
- Hypertension

Seven Habits Related to Enhanced Health Status

- No smoking
- Maintaining reasonable weight
- Eating breakfast
- Rarely snacking between meals
- Drinking alcohol only in moderation
- Sleeping 7-8 hours, nightly
- Exercising regularly

1990 Health Strategy Targets: Preventive Health Services

- High Blood Pressure Control
- Family Planning
- Pregnancy and Infant Health
- Immunization
- Sexually Transmitted Disease

1990 Health Strategy Targets: Health Protection

- Toxic Agent and Radiation Control
- Occupational Safety and Health
- Accident Prevention and Injury Control
- Fluoridation and Dental Health
- Surveillance and Control of Infectious Diseases

1990 Health Strategy Targets: Health Promotion

- Smoking and Health
- Misuse of Alcohol and Drugs
- Nutrition
- Physical Fitness and Exercise
- Control of Stress and Violent Behavior

Health Status Goals

AGE GROUP	1990 GOAL *	SPECIAL FOCUS
Healthy Infants (below age 1)	35% Fewer Deaths	Low Birth Weight, Birth Defects
Healthy Children (age 1-14)	20% Fewer Deaths	Growth and Development, Injuries
Healthy Adolescents/ Young Adults (age 15-24)	20% Fewer Deaths	Motor Vehicle Injuries, Alcohol and Drugs
Healthy Adults (age 25-64)	25% Fewer Deaths	Heart Attacks, Strokes, Cancer
Healthy Older Adults (age 65 +)	20% Fewer Sick Days	Functional Independence, Influenza/Pneumonia

Disease Prevention

The most prevalent diseases derive from lifestyle and environmental factors -- factors we can control.

Prevention and Improvement of Quality of Life

Scientific evidence shows that preventive practices and healthy behaviors improve the quality of later life through:

- Less premature disability
- Shortened periods of acute illness
- Less need for long-term care

Health Promotion Intervention

- Chronic conditions afflicting older people respond to intervention such as exercise, diet, and early care.

- Stroke and hip fracture can be prevented through health promotion activities.

Goal for Ill Elderly

Maximize function and prevent further deterioration.

Functional Dependency

The inability to attend to one's own needs, such as:

- Ambulation
- Eating and/or meal preparation
- Laundry and/or housecleaning
- Bill paying and/or other financial responsibilities
- Social and recreational activities.

Determinants of Dependency

- Physical immobility and mental confusion are the main determinants of dependency.

- These conditions can often be prevented, reversed, or reduced.

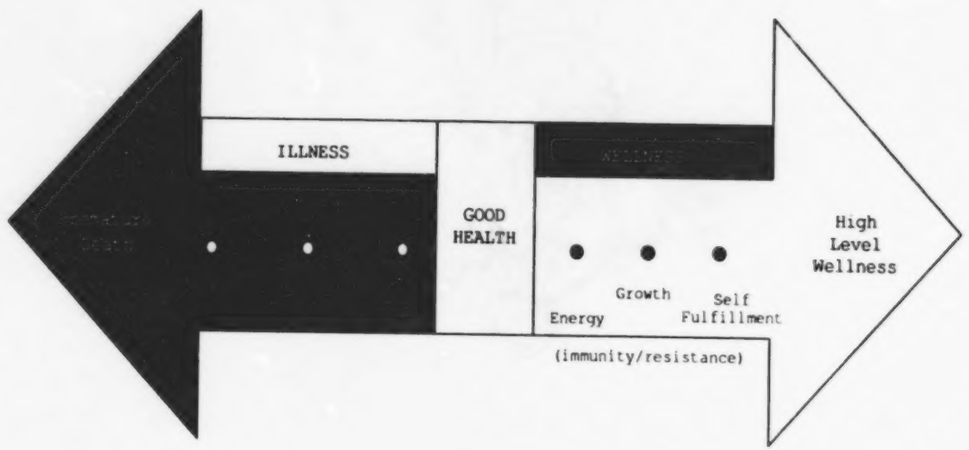
External Determinants of Dependency

Insufficient support services, e.g., lack of transportation and fear of crime, can parallel chronic physical conditions in creating constraints on mobility.

Cartoon

An ounce of prevention is worth a pound of cure

The Health Continuum



Source: Kemper, Deneen, et al. Growing Younger Handbook, 1987, p. viii. Reprinted with permission of Healthwise, Inc. Boise, ID.

best copy available

Health Promotion and the Compression of Morbidity

- Reducing/compressing morbidity.
- Preventing premature mortality.

Health Promotion and the Well Elderly

- Prevent functional dependence.
- Support/enhance functional independence.

Health Promotion and the Frail Elderly

- Reduce functional dependency.
- Prevent further functional restrictions.

Broad Perspective of Health Promotion Objectives

- Health promotion
- Disease prevention
- Health maintenance

Public Health Perspective

- Disease prevention -- maintain/improve health and medical care.

- Health protection -- modify environmental and social-structural health risks.

- Health promotion -- modify lifestyle risk factors to good health.

Etiologic Agents of Functional Dependency

- Physical health risk factors:

  - Fractures
  - Malnutrition
  - Dementia
  - Adverse drug effects.

- Mental health risk factors:

  - Social isolation
  - Stress
  - Depression.

Etiologic Agents of Functional Dependency (continued)

- Socioeconomic health risk factors:

  - Poverty
  - Housing
  - Transportation.

Health Promotion Program Steps

- Conduct needs assessment.
- Establish program goals/objectives.
- Design program implementation strategies.
- Secure funding.
- Perform program evaluation.

Researching the Problem at the National Level

- Journals of:
  - Pharmacy
  - Medicine
  - Gerontology/Geriatrics

- Federal agencies:
  - Food and Drug Administration (FDA)
  - National Institute on Aging (NIA)
  - National Center for Health Statistics (NCHS)

- Pyramid-related programs

Design Considerations

Design programs to meet the unique needs of well-defined populations and their relationship to:

- The health information to be emphasized.
- The sponsoring organization.

Local Information Resources

- Retired Senior Volunteer Programs
- Visiting Home Nurses
- Senior Centers
- Gray Panthers
- On Lok Senior Health Services
- Bay Area Pharmacists Association
- San Francisco Commission on Aging

Knowledgable Individuals

- Pharmacists
- Physicians
- Emergency Department Staff
- Senior Center Staff
- Senior Citizens

Behavior in Senior Consumers

Behavior	Importance	Potential for Change
Failure to seek medical and medication information from physicians	High	Low
Failure to seek medical and medication information from pharmacists	High	Medium
Failure to understand medical and medication information	High	Medium
Non-compliance with prescription medicines	High	Medium
Inappropriate self-medicating with OTC drugs	High	Medium
Seeing more than one physician without other physicians' knowledge	High	Low
Exchanging or using outdated medications	Medium	Medium
Using more than one pharmacist or pharmacy	Medium	Medium

Source: Eng, 1982

Assumptions that Shaped Early Planning Efforts

- Medication misuse by seniors is partly due to the elderly not participating in their own health care.
- The elderly will actively participate in their own health care if given an opportunity and sufficient support.
- Although underutilized, pharmacists/pharmacies can be valuable health resources.
- Medication misuse can be reduced through enhanced senior-pharmacist communication.

Assumptions that Shaped Early Planning Efforts (continued)

- Service providers see misuse of medication as a problem; they would use new methods for patient education.
- Responsibility for prevention of medication misuse should be shared by all health care providers.
- Financial commitment of public institutions is necessary for new public programs.

Program Goals

- *Improved health of seniors* through preventive education focused on safe medication use.

- *Increased awareness of misuse problem* through inclusion of preventive education in general services to the elderly.

Program Activities

- Continuing education workshops for pharmacists and other health providers.
- Senior Health and Drug Information Centers.
- Clerkship program.
- Direct education of seniors.

Suggested Strategies for Reducing Misuse of Medication

- More education through professional associations.
- Assertiveness and self-help workshops for the elderly, led by peer counselors.
- Education for relatives of the elderly.

Suggested Strategies for Reducing Misuse of Medication (Continued)

- Training for board-and-care home operators.
- Appropriate dosage guidelines for physician use.
- Therapy guidelines that encourage communication among various care practitioners.

Positive Factors Affecting Pharmacists' Potential Success as Patient Educators

- Professional job satisfaction
- Pending legislation mandating patient education
- Promotional advantage to increase sales volume
- Improved community image as skilled professionals

Barriers to Pharmacists as Patient Educators

- Insufficient time to:
  - Consult with patients
  - Sponsor health education activities
  - Use patient profiles or develop drug-monitoring systems.
- Lack of compensation for consultation services.

Barriers to Pharmacists as Patient Educators (continued)

- Lack of space for consultation activities.
- Lack of health education skills or support.
- Resistance from physicians.

Support Activities for Center Operations

- Formal contracts between SRx and the Centers.
- Guidelines for pharmacist-senior consultants.
- One-page consumer drug information handouts on 10 commonly prescribed drugs and five over-the-counter products.
- Over-the-counter information signs on the pharmacy shelves.

Support Activities for Center Operations (continued)

- Health education displays on hypertension, arthritis, safe and rational drug use, diabetes, dual use of Western and Eastern medicines.
- Periodic review by staff of patient medication profiles.
- Health screenings (hypertension, diabetes, dental).
- Medication profiles.

Attracting Funding

- Community support enhances a program's chances for funding.
- Use needs-assessment data to make a stronger case for program development.
- Private foundations support innovative programs with strong potential of future continuance (support) by public institutions.

Sources of Funding

- Government grants
- Private foundations
- Churches and synagogues
- Individual and/or corporate donors
- Fee-for-service
- Fund-raising events

Community Resources

- Hospitals
- Nursing homes
- Colleges/universities
- Parks and Recreation Departments
- Health associations
- Media
- Peers

Data Collection

Target Population	Evaluation Method
Seniors	• Written pre-/post-tests on attitudes and behaviors
	• Surveys of participant satisfaction with mini-classes
Pharmacists	• Analyses of Information Centers' documentation (monthly) of number of consultations and other educational efforts
	• Questionnaires to ascertain pharmacists' perceptions of program success

Value of Program Evaluation

- Factual basis for altering program strategies and directing the expansion of program initiatives.

- Data can be used for marketing and funding efforts.

Stay Well -- Pivotal Concepts

- Older people can take charge of their own health management.

- Use of older peer volunteers as the health program delivery system.

Four Components of the Stay Well Program

- Health Education Course
- Senior Volunteer Training Program
- Volunteer-Led Activities
- Mini-Courses and Special Events

Key Features

- Use of senior center locations.
- Mobilizing health agencies/ practitioners to volunteer their services at low or no cost.
- Senior peer counselors/volunteers.

Growing Younger Workshops

- Fitness
- Nutrition
- Stress Management
- Medical Self-Care

Evaluation Findings

Improvements in:

- Blood pressure
- Weight control and body fat percentages
- Cholesterol
- Flexibility
- Exercise

Growing Wiser Workshops

- Memory
- Mental alertness
- Loss and life change
- Choices for living

SHAF Focus

- Enhance seniors' knowledge of:

  - Good health practices
  - Available community services and health care resources.

- Development of healthy lifestyle skills.

SHAF Health Education Course

- Health care
- Health problems
- Emergencies
- Medications
- Common health conditions
- Chronic conditions
- Lifestyle
- Exercise
- Nutrition
- Emotional well-being
- Being a wise consumer
- Self-care contract

Key Components to Successful Health Promotion Programs for Seniors

- Needs assessment
- Senior involvement in the design of the program
- Multi-dimensional -- holistic
- Highly participatory -- small groups
- Recognize the social interaction needs of seniors
- Fun
- Upbeat message

Key Considerations

- Sponsorship
- Community networking
- Staffing
- Budget
- Public relations
- Recruitment

Public Relations Strategies

- In-person contact
- Establish information requirements
- Develop long-term rapport
- Follow up
- Be newsworthy
- Be tenacious
- Show your appreciation

Source: Mettler and Kemper, 1989

7 P's of Recruitment

- Planning
- Publicity and Public Relations
- Public Presentations
- Phone Calls
- Personal Contact
- Participants and Program Graduates
- Personal Commitment

Source: Mettler and Kemper, 1989

Use of Community/Family Members

Family members and community spokespersons can facilitate program effectiveness by promoting:

- Credibility
- Visibility
- Ownership
- Interactive communication
- Cultural sensitivity

Use Existing Channels of Communication

- Local health practitioners
- Local lay and religious leadership
- Local political and social organization leadership
- Entertainment, sports, and media personalities
- Print/media editors and reporters
- Advocacy groups
- Professional organizations

Readiness to Take Action

- Belief that one is susceptible.
- Belief that condition can negatively affect one's life
- Awareness that action is possible and can increase positive outcome

Demographic Considerations

- Level of education
- Level of acculturation
- Level of diffusion/acceptance of health information

Factors Impacting Use of Innovative/New Information

- Relative advantage
- Compatibility
- Complexity
- "Trialability"
- Observability

Health Education

- Health information/knowledge base.
- Incentivation strategies for:

  - Healthful decision making
  - Risk factor modification
  - Incorporation of therapeutic routines
  - Avoidance of harmful practices.

Ineffective Training

- Limited interaction
- No movement
- No message/substance
- Impractical
- No humor
- No reference to experience(s)
- Not as advertised
- Disorganized
- No handouts

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Elements of Effective Training

- Useful information that participants can apply.
- Variety of training methods.
- Acknowledges participants' expertise.
- Enthusiastic presentation.

V. Handouts

1982 DEATHS RATES* FOR THE TEN LEADING CAUSES OF DEATH AMONG PERSONS 65 AND OLDER, BY RANK ORDER AND BY AGE

Cause of Death	65 and Over	65 - 74	75 - 84	85 and Over
All Causes	5048.9	2885.2	6329.8	15,048.3
1. Diseases of heart	2223.9	1156.4	2801.4	7341.8
2. Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	1022.0	824.9	1238.7	1598.6
3. Cerebrovascular disease	505.7	193.5	675.1	2000.8
4. Chronic obstructive pulmonary disease and allied conditions	176.8	131.1	236.0	278.0
5. Pneumonia and influenza	152.9	47.6	183.4	747.8
6. Atherosclerosis	95.2	20.6	102.9	563.0
7. Diabetes mellitus	94.0	60.1	125.4	212.1
8. Accidents	85.8	50.9	103.9	255.9
Motor Vehicle accidents	20.4	17.5	25.2	23.7
All other accidents	65.4	33.4	78.7	232.2
9. Nephritis, nephrotic syndrome and nephrosis	53.5	25.8	69.7	182.8
10. Chronic liver disease and cirrhosis	35.3	40.1	31.1	17.9
All other causes	603.4	334.1	762.2	1849.6

*Rates are per 100,000 population in age group

Source: National Center for Health Statistics, 1982.

TEN LEADING CAUSES OF DEATH
UNITED STATES, 1987

RANK	CAUSE OF DEATH	NUMBER	PERCENTAGE OF TOTAL DEATHS
1 (a)	Heart Diseases	759,400	35.7
2 (a)	Cancers	476,700	22.4
3 (a)	Strokes	148,700	7.0
4 (b)	Unintentional injuries	92,500	4.4
5	Chronic obstructive lung diseases	78,000	3.7
6	Pneumonia and influenza	68,600	3.2
7 (a)	Diabetes mellitus	37,800	1.8
8 (b)	Suicide	29,600	1.4
9 (b)	Chronic liver disease and cirrhosis	26,000	1.2
10 (a)	Atherosclerosis	23,100	1.1

(a) Causes of death in which diet plays a part.
(b) Causes of death in which excessive alcohol consumption plays a part

Source: *The Surgeon General's Report on Nutrition and Health*, 1988

PERSONAL HEALTH HABITS QUESTIONNAIRE

PLEASE CIRCLE THE ANSWER THAT BEST DESCRIBES YOUR BEHAVIOR

1	I smoke...	Never	Sometimes	Often
2.	My weight is...	Reasonable	Over	Under
3.	I eat breakfast...	Always	Never	Sometimes
4.	I snack between meals...	Rarely	Sometimes	Usually
5.	I drink alcohol...	Rarely	Only on weekends	With every meal
6.	I sleep...	6-7 hrs./night	7-8 hrs/night	9-10 hrs/night
7.	I exercise ...	Rarely	Sometimes	Regularly

RISK FACTORS ASSOCIATED WITH DEPENDENCY

Physical Health Risk Factors

While there is incomplete knowledge of normal and pathologic aspects of aging, it is nevertheless possible to identify some physiologic ramifications of aging that are associated with increased risk of functional dependency.

Accidents constitute a significant dependency risk factor for the elderly.

- Falls, pedestrian accidents, and fires and burns are leading causes of unintentional injury mortality for the elderly.
- Non-fatal accidents are even more significant -- the elderly are involved in approximately 4 million such incidents, annually, 60% of which occur in the home.
- Nationwide data support the conclusion that the elderly are prone to falls, many of which result in fractures that restrict physical mobility.
- The high incidence of falls has been attributed to a variety of factors, including:
  - Loss of muscle strength and endurance ability.
  - Loss of vision and hearing accuity.
  - Slowed adjustment to light-dark changes.
  - Postural imbalance.
  - Altered gait.
  - Slowed reaction time.
  - Hazards in the physical environment, such as poor lighting, loose carpets, lack of handrails, etc.
  - Medication side effects (e.g., a drop in blood pressure upon standing).

Malnutrition is also a dependency risk factor.

- Malnutrition is one of the causes of reversible dementia.
- Malnourishment may also contribute to changes in the bone structure, which may in turn contribute to injury due to accidents.
- A number of factors have been implicated in the malnutrition of the elderly, including:
  - General loss of appetite and disinterest in food, due to depression or as a result of physiologic changes that alter the sense of taste.
  - Loss of teeth or other dental problems, such as ill-fitting, false teeth -- approximately 50% of the elderly do not have any natural teeth; 1/4 of these do not have or do not use dentures.

Source: adapted from *Filner and Williams*, 1981

RISK FACTORS ASSOCIATED WITH DEPENDENCY (Continued)

- Mobility problems that limit an individual's ability to shop and/or prepare food.

- Poverty; limited purchasing power that impacts not only ability to buy quality food, but also to obtain dental services, since these are not covered by most health care financing mechanisms.

Mental confusion is a dependency risk factor that has been associated with aging.

- Senility, simple dementia, organic brain syndrome, and hardening of the arteries were once accepted as the likely endpoint of aging.

  - Importantly, causes other than aging have been pinpointed, and preventive and/or palliative treatments are available in many instances.

  - Progress is being made in recognizing that "senile" changes are probably the result of disease, and not part of the normal aging process.

- There are several known treatable causes of reversible chronic dementia, including:

  - Therapeutic drug interaction.
  - Depression.
  - Metabolic disorders, such as kidney, liver, and pituitary malfunctions, among others.
  - Chronic subdural hematoma.
  - Tumors.
  - Alcohol toxicity.
  - Chemical intoxications, such as are induced by arsenic and mercury.
  - Nutritional deficiencies.
  - Sensory deprivation, such as deafness and blindness.
  - Chronic infections, such as meningitis, neurosyphilis, brain abscess, and tuberculosis.

Medication is known to cause adverse drug effects upon the mental and physical health of the elderly who are especially prone to such complications.

- The elderly often have multiple chronic conditions resulting in the prescription of complicated drug regimens, often by a number of different physicians -- this can foster unanticipated drug interactions and adverse health effects.

- Relatively little research has addressed the altered handling of standard drugs for older adults:

  - Existing documentation shows that the uptake, distribution, and retention of many drugs are not the same for elderly and young adult populations.

  - This is a critical concern since clinical trials are typically performed on young adults, not on the older population.

RISK FACTORS ASSOCIATED WITH DEPENDENCY (Continued)

Mental Health Risk Factors

Social isolation and *social disruption* are dependency risk factors for the elderly.

- Social support networks can off-set the impact of high-stress situations on both physical and mental health. In this respect, spouses and contact with close friends and relatives are more beneficial than membership in religious or other formal/informal groups, but even the latter affiliations have positive effects in terms of reducing the negative consequences of stressful situations.

- Relocation effects, due to the social disruptions associated with physical movement from one environment to another, have been associated with increased morbidity and mortality of the elderly.

  - The most vulnerable to adverse effects are those who are physically ill, depressed, disoriented, confused, or involuntarily moved.

  - Negative consequences can be minimized (and possibly avoided) by the following factors:

    -- Planning ahead, e.g., pre-retirement planning.
    -- Optimizing the individual's opportunities for choice.
    -- Emphasizing individualized preparation activities.
    -- Instituting a pre-move orientation to the new location.
    -- Enhancing the individual's participation in decision making.

Stress is a significant dependency risk factor since the elderly typically carry a high burden of stress.

- The Holmes and Rahe Social Readjustment Rating Scale assigns stress-intensity values to life situations.

  - High stressors include:

    -- The death of a spouse, close relative, or friend.
    -- Illness.
    -- Retirement.
    -- Financial concerns.

  - Other stressors that have less individual impact, but taken together have a cumulative, negative effect, include changes in:

    -- Residence and/or living conditions.
    -- Recreation and/or social activities.
    -- Sleeping, eating, and/or other personal habits.

RISK FACTORS ASSOCIATED WITH DEPENDENCY (Continued)

Depression is a significant mental health risk factor.

- Elderly persons frequently suffer stress-related depression.
- Drug effects may aggravate or initiate depression, including symptoms such as altered sleeping patterns (insomnia or too much sleep), loss of appetite, apathy, agitation, etc.

Socioeconomic Health Risk Factors

Poverty is a major factor in the functional dependency of the elderly.

- Not only does poverty cause poor health, but poor health can cause poverty because it depletes financial and other resources.
- While there is tremendous variation in the financial pictures of individuals, taken as a group, the elderly are poor, and functionally limited as a result:
  - Activity limitation is inversely proportional to income.
  - Few of the supports that permit the elderly to maintain mobility and social interaction (e.g., glasses, hearing aids, walking devices) are covered under Medicare, Medicaid, or private insurance.

Housing factors into functional dependency since the physical environment can shape the individual's interaction with the outside world.

- The home and neighborhood location can promote supportive social interactions or can isolate the elderly.
- More than half of the elderly own their own home, many of which are more than 40 years old.
- These homes were not designed with the needs of the elderly in mind, and they may be in a state of disrepair.
- Features such as adequate lighting, handrails, ramps, etc., may not be present thus increasing the likelihood of accidents.
- Heating may be a problem due to older systems or lack of capital to cover fuel costs, either of which can result in such adverse effects as hypothermia.

RISK FACTORS ASSOCIATED WITH DEPENDENCY (Continued)

Transportation is also a determinant of the quality of life of the elderly.

- Lack of transportation may restrict an individual's ability to access health care, food, or socially enriching support programs.

- The elderly who are mobile and depend upon walking as their main mode of transportation may be at risk of injury due to:

  - Lack of sidewalks or pedestrian cross walks.
  - Improper lighting.
  - High-speed traffic.
  - Traffic lights that are not timed to accomodate slower-paced pedestrians.
  - Street crime.

Nutrition: Overview and Questions

Overview:

Epidemiologic studies indicate that here is a relationship between diet and chronic diseases. The related diseases include heart disease, stroke, hypertension, cancer, and osteoporosis.

In addition to established, life-long eating habits (whether good or bad), an older population must contend with new age-related factors:

- Many have lost their teeth so require softer foods in their diets.
- As age increases, the sense of taste diminishes, so older adults may add sweet and salty food to their diets.
- Many adults must cook for only one person, so often they may not bother to have a well-rounded meal.

Questions:

- What activities can you develop in order to change life-long eating patterns?
- How do you address the specific nutritional problems for economically impoverished elderly or minority populations with eating patterns dominated by high-salt, high-fat foods?
- What topics should be covered in a nutritional program designed for the aged?

Injury Prevention: Overview and Questions

Overview:

Accidents are the eighth most common cause of death for the elderly.

- The most common causes of accidental injury in this age population are falls, auto-related accidents, and burns.
- An estimated 24,000 to 28,000 elderly adults die annually from accidents.
- Each year an additional 800,000 other people aged 65 and over are annually disabled for at least one day from an injury received.

Questions:

- What physiological changes in the elderly are related to this increased risk for accidents among seniors?
- What community agencies should be utilized in implementing this type of program?
- What topics should be included in a home safety campaign for the elderly?
- What specific steps can be taken to prevent falls and/or burns?

Exercise: Overview and Questions

Overview:

Research shows that exercise will strengthen heart, lungs, and bones; lower blood pressure; reduce stress; improve sleep; and aid mental health by keeping one socially active.

As stated by Robert N. Butler, M.D., former Director, National Institute on Aging, "If exercise could be packed into a pill, it would be the single most widely prescribed and beneficial medicine in the Nation."

Questions:

- What barriers are you likely to encounter in initiating an exercise program directed to the elderly?
- What programmatic/topic changes are necessary to address in an exercise program designed for seniors as compared to one for a younger population?
- What innovative activities can you develop for attracting the elderly to an exercise program (e.g., mall walking, etc.)?
- How should the exercise program address the needs of the frail elderly and other senior sub-groups?

Recording Form:
A Five-Step Approach to Designing a Successful Health Promotion Program

Step 1: Needs Assessment

a. Research the Problem:

- Where can you find documented data to determine the extent of the problem or to identify associated causes and effects?

- List journals and agencies on the national level that would provide relevant epidemiological or informational data.

  Journals Agencies

- List agencies/reports/personnel on the local level that could be contacted to ascertain if there is a problem locally, and how it compares to the national data.

  Agencies Reports Personnel

Recording Form:
A Five-Step Approach to Designing a Successful Health Promotion Program

b. **Assess the Community and Target Audience:**

- What groups would you develop questionnaires for, conduct focus groups on, etc., to get a better understanding of the community? What information would you want to get from each group/

Group	Type of Information

- Based on the above information, list the possible target audiences for the health promotion program/intervention in declining order (from the first choice to the last choice).

Target Audiences

Recording Form:
A Five-Step Approach to Designing a Successful Health Promotion Program

Step 2: Establish Program Goals and Objectives

a. Identify the Behavior(s) Causing the Problem:

- For the target population(s), identify the behaviors that led to the problem. List them according to their importance and their potential for change.

- Place an asterick (*) by the behaviors the group feels this health promotion project should address based upon both the importance of the behavior and its changeability potential.

Behavior	Importance*	Potential for Change**

*Importance refers to how often the behavior occurs and how directly it relates to the health problem. A "high" rating means the behavior is strongly implicated as a causal factor, while a "low" rating signifies that the behavior is a relatively infrequent occurrence and/or is not directly affecting the health problem.

**Rating potential for change is largely dependent on subjective perceptions of the liklihood of altering established attitudes or behavior patterns. Research findings demonstrate that a behavior is highly amenable to change when (1) it has only been recently established and (2) is not tied strongly to lifestyle or cultural patterns. Low changeability is based on opposite factors (i.e., long-term pattern and/or strongly related to lifestyle/cultural patterns).

Recording Form:
A Five-Step Approach to Designing a Successful Health Promotion Program

b. Establish Program Goals:

- A *goal* is a broad, long-range statement of a program's intent. The behaviors that were asterisked (*) in the previous section are the behaviors the program will try to change. The goals should reflect this. State the program goals.

Goals

c. Establish Program Objectives

- *Objectives* are specific statements of intent that list actions that can be measured in a given period. Objectives state (1) who will experience, (2) what change or benefit, (3) how much, and (4) how soon. State the program objectives.

Recording Form:
A Five-Step Approach to Designing a Successful Health Promotion Program

Step 3: Program Strategies

The selection of educational strategies and activities should grow out of the goals and objectives established for the program. A basic premise of health education is that a variety methods should be used to achieve success in an educational campaign since all methods do not work equally well with all people. Available resources and staff skills must be evaluated when considering the range of educational methods to be employed.

Select one of the objectives stated in Step 2, above. Outline the educational activities you would design and implement. If this is to be a phased approach, list the order you would use to introduce the activities.

Educational Strategies and Activities

Recording Form:
A Five-Step Approach to Designing a Successful Health Promotion Program

Step 4: Funding the Program

Acquiring funding for a program often requires building a base of operations. Both public and private funds may be utilized to initiate a health promotion program. Identifying the resources of the sponsoring organization, and locating additional resources in the community, are essential steps. When a project has limited funding, program planners must utilize and coordinate existing community resources in order to provide health promotion activities at minimal cost.

List possible Sources of Funding for your specific topic.

List possible Community Resources your specific project could utilize.

Recording Form:
A Five-Step Approach to Designing a Successful Health Promotion Program

Step 5: Program Evaluation

On-going evaluation is important for a variety of reasons: (1) to determine the impact of the program on the target group(s), (2) to identify needed program changes, and (3) to evaluate the potential for maintaining and expanding the program. Numerous methods can be utilized to gather evaluation data. For your specific topic, discuss what methods and data items would be most appropriate for your target population(s).

Target Population	Evaluation Method	Data Items

SAMPLE QUESTIONNAIRES:

PHARMACISTS QUESTIONNAIRE

Name _____ Name of Pharmacy _____

Home address _____ Pharmacy Address _____

Work Phone _____

Are you the pharmacy's ☐ Owner ☐ Employee ☐ Manager

School from which you graduated _____ Year _____

(Please check the appropriate responses)

1. How do you regard your role in the community?
   - ☐ Health professional
   - ☐ Health information resource
   - ☐ Merchant
   - ☐ Druggist

2. In addition to drug distribution, what other services do you provide at your pharmacy?
   - ☐ Handling Medi-Cal forms
   - ☐ Delivery service
   - ☐ Insurance claim forms
   - ☐ Charge accounts
   - ☐ Pharmacist-initiated consultation with doctors
   - ☐ Advice and precautionary information
   - ☐ Personal medical records (patient profiles)
   - ☐ Health information booklets or materials
   - ☐ Others _____

4. What limitations discourage you from offering more services?
   - ☐ Do not feel it is part of my professional role
   - ☐ Time restrictions
   - ☐ Difficult relationships with doctors
   - ☐ Shortage of manpower
   - ☐ Inappropriate physical layout for increasing patient-pharmacist interaction
   - ☐ Legal implications (liability)
   - ☐ Others _____

5. As a pharmacist, how much information should you give to senior consumers regarding:
   a) OTC Drugs:
      - ☐ Feel it is the doctor's responsibility
      - ☐ Give information only when asked
      - ☐ Volunteer information when not asked

   b) Prescription drugs:
      - ☐ Feel it is the doctor's responsibility
      - ☐ As much as the doctor has indicated on the prescription
      - ☐ Other additional information
      - ☐ Quantity of information based on judgment of individual cases

   c) Medical condition or illness:
      - ☐ Only as much as the doctor has told the patient
      - ☐ Feel it is the doctor's responsibility
      - ☐ Other additional information
      - ☐ Quantity of information based on judgment of individual cases

6. As a matter of policy, do you quote drug prices over the phone
   ☐ Yes ☐ No ☐ Sometimes

7. Have you taken advantage of the legislation permitting pharmacist's to make substitutions with generic drugs?
   ☐ Never ☐ Seldom ☐ Sometimes ☐ Often
   ☐ Very often

8. If not, why?
   - ☐ Increased liability
   - ☐ Lack of quality generic products
   - ☐ Other reasons _____

9. Do you feel there is a need for a non-prescription (OTC) guide for consumers in the neighborhood you serve?
   ☐ Yes ☐ No ☐ Don't know

10. If such a guide were available, would you be willing to distribute it? ☐ Yes ☐ No ☐ Undecided

11. Are you willing to contribute your expertise in developing this booklet (i.e. input in terms of knowledge, information, editing of contents, etc.)? ☐ Yes ☐ No ☐ Undecided

12. Would you participate in a conference on drugs and the elderly, accredited for pharmacy continuing education?
    ☐ Yes ☐ No ☐ Perhaps
    - ☐ Only if the registration fees are minimal
    - ☐ Even if the registration fee is standard
    - ☐ Only if it were offered free of charge

13. Would you participate in a Speaker's Bureau for the Northeast area that would involve talking to senior groups regarding drug-use, interaction, and other pharmacy-related questions?
    ☐ Yes ☐ No ☐ Undecided
    - ☐ On a voluntary basis
    - ☐ On a consultant-fee basis
    - ☐ On a combination volunteer and fee basis

Thank you for taking the time to participate in our survey.

SRx

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SAMPLE QUESTIONNAIRES:

SENIOR CITIZEN QUESTIONNAIRE

The Senior Medication Education Program has been funded by two local foundations to promote the health of elderly residents in the Northeast District of San Francisco. The program will involve the pharmacist in your local drug store bringing expanded educational services to consumers over 55 years of age who use both prescription and over-the-counter medicines. We hope to include the information we gather from your questionnaire to plan a program that will meet the needs of the elderly living in your community. We would appreciate your filling out this questionnaire and returning it to us in the envelope provided.

Name _____ Address _____

Phone _____ _____ Ethnic Background _____ ☐ Male ☐ Female Date_____

1. How do you choose the pharmacy you patronize?
   - ☐ Close and convenient
   - ☐ Know and trust the pharmacist
   - ☐ Drugs and other merchandise are less expensive
   - ☐ Other services the pharmacy provides (i.e. advice, delivery, charge accounts, etc.)
   - ☐ Other reasons _____
2. Which pharmacy do you most often go to?
   Name _____
   Address _____
3. Do you regard pharmacists as:
   - ☐ Health service providers
   - ☐ Druggists
   - ☐ Merchants
   - ☐ General health information givers
   - ☐ Only pill counters
4. How often do you ask for advice from a pharmacist? (Please circle the appropriate numbers)

   NEVER SOMETIMES OFTEN
   1 2 3 4 5

   What kinds of advice? (Check any that apply)
   - ☐ About prescriptions
   - ☐ About choosing a non-prescription medication
   - ☐ About a medical problem prior to seeing a doctor
   - ☐ About medical problems after seeing a doctor
   - ☐ Precautionary information about drug side-effects and drug interactions
   - ☐ Other _____
5. Do you feel pharmacists have an obligation to provide the following services?
   a) Explain prescription directions
      ☐ Yes ☐ No ☐ Undecided
   b) Give advice or precautionary information
      ☐ Yes ☐ No ☐ Undecided
   c) Give referrals for other health services
      ☐ Yes ☐ No ☐ Undecided
   d) Keep accurate records of your prescription
      ☐ Yes ☐ No ☐ Undecided
   e) Provide health information booklets
      ☐ Yes ☐ No ☐ Undecided
   f) Consult with doctors over your prescription
      ☐ Yes ☐ No ☐ Undecided
   g) Consult with you or your prescriptions
      ☐ Yes ☐ No ☐ Undecided
6. Do you feel most pharmacists are qualified to give you advice and consultation about your drugs?
   ☐ Yes ☐ No ☐ Undecided
7. If an OTC (over-the-counter) booklet, entitled the "Senior's Guide to Using Drugs in Later Years" was developed, would you use it?
   ☐ Yes ☐ No ☐ Undecided
8. If a Senior Education & Information Center was developed in your local pharmacy, what services would you like to see it include?
   - ☐ Special displays
   - ☐ Information leaflet
   - ☐ Informational signs on categories of products
   - ☐ Record of drugs you are using or have used
   - ☐ More bilingual information
   - ☐ Explanation for home remedies
   - ☐ Others _____
9. What do you feel your neighborhood pharmacy can do to meet your specific health needs? _____
10. Where do you get your information when you have questions regarding drugs?
    - ☐ Family/friends
    - ☐ Doctors
    - ☐ Magazines, books, newspapers
    - ☐ Pharmacists
    - ☐ Herbalists
    - ☐ Others _____
11. What kinds of "Non-Western" drugs—home or folk remedies—have you used or do you now use? _____
12. Would you be interested in helping us plan this program?
    ☐ Yes ☐ No
    If yes, which areas interest you most?
    - ☐ Senior Drug Education & Information Center
    - ☐ Pharmacists' Training Workshop
    - ☐ Senior's Guide to Using Drugs in Later Years
    - ☐ Pharmacist's Speaker's Bureau

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SAMPLE QUESTIONNAIRES:

SENIOR AGENCIES AND ORGANIZATIONS QUESTIONNAIRE

In developing our program in the Sunset-Richmond area, we would greatly appreciate your participation in helping us to identify some specific needs. Thank you.

Organization _____ Phone_____

Address _____ Contact Person_____

Please check:

1. Have you ever received a referral to your agency from a pharmacist?

   ☐ Never ☐ Seldom ☐ On several occasions ☐ Often

2. Have you ever requested information from a pharmacist regarding a member or client? ☐ Yes ☐ No

3. Would you use a pharmacist referral through a local community Speaker's Bureau for any of the following reasons?

   ☐ Drug information ☐ Consultation
   ☐ Conducting rap groups ☐ Other _____

4. How do you regard the role of the community pharmacist?

   ☐ General health information resource
   ☐ Health professional with a patient clientele
   ☐ Pill-counter
   ☐ Druggist
   ☐ Merchant
   ☐ Primary source of drug information

5. What are some services you feel that pharmacists should provide to the community?

   ☐ Referral and resource for health problems
   ☐ Community group presentations
   ☐ Self-medication advice
   ☐ Precautionary drug information
   ☐ Health pamphlets/brochures
   ☐ Other_____

6. What kind of questions are most often asked by your senior citizens regarding the use of drugs?

   _____
   _____
   _____
   _____
   _____

7. Do you think seniors need more information concerning the drugs they are using? ☐ Yes ☐ No

8. If a Senior Health & Drug Information Center was developed in your local community pharmacy, would you encourage your senior members to use it?

   ☐ Yes ☐ No Why?_____
   _____
   _____
   _____

9. Please list any additional comments concerning how you see community pharmacists meeting specific health needs of seniors involved in your agency or organization.

   _____
   _____
   _____
   _____
   _____

If you have any questions regarding the program, please feel free to call.

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SAMPLE QUESTIONNAIRES:

PHYSICIAN'S QUESTIONNAIRE

Name _____

Office Address _____

Work Phone _____

Please check the appropriate responses below:

1. Do you regard the role of the community pharmacist as a:

   ☐ Health professional ☐ Drug information expert
   ☐ Health information resource ☐ Referral resource
   ☐ Merchant

2. What drug information have you sought from pharmacists?

   ☐ Drug interactions and side-effects
   ☐ Available dosage forms and strengths
   ☐ Drug pricing information
   ☐ Patient consultation
   ☐ Other _____

3. How much information do you feel pharmacists should give consumers on these:

   a) OTC drugs:
   ☐ Feel it is the doctor's responsibility
   ☐ Should give information only when asked
   ☐ Should volunteer pertinent information
   ☐ Should give even when not asked

   b) Prescription drugs:
   ☐ Feel it is solely the doctor's responsibility
   ☐ As much as the doctor has indicated on the prescription
   ☐ Other additional information
   ☐ Quantity of information should be based on the pharmacist's judgment of individual case

   c) Medical condition or illness:
   ☐ Only as much as the doctor had told the patient
   ☐ Feel it is the doctor's responsibility
   ☐ Other additional information
   ☐ Quantity of information based on the pharmacist's judgment of each individual case

4. What roles or functions do you feel pharmacists are qualified to perform?

   ☐ Monitoring for drug interactions
   ☐ Referral
   ☐ Substitution with generic drugs
   ☐ Advice and precautionary information to clients
   ☐ Consumer education through information booklets
   ☐ Others _____

5. Do you feel the health of senior patients and consumers can be improved through better relations between physicians and pharmacists?
   ☐ Yes ☐ No ☐ Undecided

   If you responded Yes, in what ways?

   ☐ Exchange of information on drugs
   ☐ Exchange of information concerning patients
   ☐ A mutual regard for each other's therapeutic relationship with individual patients
   ☐ Others _____

6. What role do you think the pharmacist can play in reducing misuse and abuse of OTC and prescription drugs among seniors?

   _____
   _____
   _____
   _____
   _____

7. When you recommend a pharmacy to your patients, what factors influence your decision?

   ☐ Price of prescriptions
   ☐ Convenience of location
   ☐ Trusting relationship with pharmacist
   ☐ Additional services the pharmacist provides
   ☐ As a policy, you regard it as a matter of a patient's free choice
   ☐ Other _____

8. Approximately what percentage of the patients coming to your clinic or office are seniors? _____%

9. What kind of questions are asked most often by your senior patients regarding the use of prescription or OTC drugs?

   _____
   _____
   _____
   _____
   _____

11. In the neighborhood where you practice, do you feel there is a need for a "Senior Citizen's Guide for Using Drugs in Later Years"? ☐ Yes ☐ No ☐ Undecided

10. What kind of expanded services would you like to see included in the pharmacies that are involved with the Senior Drug Education & Information Centers?

    ☐ Special displays
    ☐ Information leaflets
    ☐ Informational signs on categories of products
    ☐ Patient record cards
    ☐ More bilingual information
    ☐ Explanation of home remedies
    ☐ Any others _____

12. If a Senior Education & Information Center was developed in your community, would you recommend its services to your senior patients? ☐ Yes ☐ No ☐ Undecided

13. Would you be willing to serve as the physician consultant on the Program Advisory Committee?

    ☐ Yes ☐ No ☐ Undecided

    And would you be willing to consult with us periodically on different components of the program?

    ☐ Yes ☐ No ☐ Undecided

Thank You!

℞

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BEHAVIORS RELATED TO THE MEDICATION MISUSE PROBLEM

Behavior	Importance	Potential for Change
Behavior in Senior Consumers		
Failure to seek medical and medication information from physicians	High	Low
Failure to seek medical and medication information from pharmacists	High	Medium
Failure to understand medical and medication information	High	Medium
Non-compliance with prescription medicines	High	Medium
Inappropriate self-medicating with OTC drugs	High	Medium
Seeing more than one physician without other physicians' knowledge	High	Low
Exchanging or using outdated medications	Medium	Medium
Using more than one pharmacist or pharmacy	Medium	Medium
Behavior in Pharmacists		
Failure to consult with elderly patients when dispensing a prescribed or OTC medicine	High	Low
Failure to intervene when perceiving a potential or seemingly apparent medication problem	High	Medium
Failure to provide patient education services	Medium	Medium
Behaviors in Physicians		
Failure to adequately consult with elderly patient during appointment	High	Low
Prescribing medication based on inadequate or incorrect diagnosis	High	Low
Prescribing inappropriate medications	High	Low
Behavior in Other Health Care Providers		
Failure to bring a perceived health problem of senior client to physician's or pharmacist's attention	Medium	Medium
Failure to recognize medication problems in the elderly	High	High

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HANDOUT

PROGRAM OVERVIEW: STAY WELL

The STAY WELL model has four components:

- The Health Education Course
- The Senior Volunteer Training Program
- Volunteer-Led Activities
- Adaptions and Additions to the Program.

Each of these components is detailed below.

1.0 The Health Education Course

This is the basic educational component used for the STAY WELL program. The course is designed to attract and inform a group of older adults, from whom a smaller, solid cadre of senior volunteers interested in and capable of becoming peer leaders is later recruited.

The 12-session Health Education Course is coordinated by a STAY WELL staff person, and presented twice a week for six weeks, for a group of 25 to 30 older adults who have pre-registered.

The following is a summary of the STAY WELL Health Education Course sessions. The first and last sessions should remain in place regardless of other adaptions since they provide a logical beginning and conclusion. Lesson plans and materials for all sessions are in the manual that is available for purchase.

Session 1 *"Taking Charge-Staying Well"* (Personal Health Goals/Communicating with Health Care Professionals) is an introduction to the program. This session discusses how to establish personal health goals and how to communicate with doctors, nurses, and pharmacists.

Session 2 *"Make Yourself At Home"* (Safety in the Home) teaches how to identify age-related changes that make older adults vulnerable to injuries; it also teaches how to assess safety in the home and make modifications.

Session 3 *"Prescription For the Good Life"* (Medication Management) instructs elderly in understanding medication, and common interactions of food/beverage and drugs; also includes how to discuss medication more effectively with doctors and pharmacists for responsible medication management.

Source: New York City Department of Aging, 1988

PROGRAM OVERVIEW: STAY WELL (Continued)

Session 4	"*Being The Best You Can Be*" (Coping With Hypertension) outlines ways to understand and cope with hypertension; explains risk factors, complications, and consequences of untreated hypertension, and various treatment methods.
Session 5	"*Being The Best You Can Be*" (Coping with Diabetes) describes who is at risk, early symptoms and warning signs, and treatments.
Session 6A	"*Being The Best You Can Be*" (Coping with Cancer) includes information about cancer and cancer prevention, importance of early detection; identifies types of cancer most common among the elderly.
Session 6B	"*Being The Best You Can Be*" (Coping with Arthritis) explains the difference between the two major forms of arthritis, the risk factors, the impact on the individual, and techniques and goals of arthritis management.
Session 7A	"*Feeling Like a Million From Head to Toe*" (Oral Health) offers information on function and basic structure of teeth; causes and prevention of decay, control of plaque, periodontal disease and other diseases of the mouth; use and care of dentures.
Session 7A	" *Feeling Like a Million From Head to Toe*" (Foot Care) provides instruction on common foot problems of the aging, foot care techniques; and identifies symptoms of serious foot conditions.
Session 8	"*You're Getting Better All The Time*" (Grief and Loss) looks at grief and loss and how to identify the physical, emotional, and social changes that accompany aging; explores grief as a normal reaction, and offers helpful coping strategies.
Session 9	"*You're Getting Better All The Time*" (Sexuality) deals with myths and realities of sexuality in later life, physical changes affecting sexuality, and effects of illness on sexuality.
Session 10A	"*Using Your Common Senses*" (Vision) explores vision changes of normal aging, early signs of possible problems, types of rehabilitation.
Session 10B	"*Using Your Common Senses*" (Hearing) explores hearing changes of normal aging, early signs of possible problems, and types of treatment.
Sesssion 11	"*You Are What You Eat*" (Nutrition) illustrates how good food choices lead to good health; identifies major nutrients and their functions and food sources.

PROGRAM OVERVIEW: STAY WELL (Continued)

Session 12 *"STAY WELL-Now You're In Charge"* (Summary) reviews original goals, emphasizes positive life styles changes and effects of having participated in Health Education Course; discusses next steps for continuing healthy regimens

2.0 The Volunteer Training Program

Most of the participants attend the Health Education Course in order to learn more about their own personal health, but a number are interested, right from the beginning, in "spreading the good word" and leading group activities for their peers. With STAY WELL, typically 25 percent of those who complete the education course sign up for the Volunteer Training Program.

The six-session training program prepares these graduates to return to their individual senior centers as health activity leaders and coordinators. Training is usually presented at the same "host"site used for the Health Education Course.

Volunteers are trained in basic group skills and leadership techniques. They are also taught the specific routines used for physical exercise classes and stress management sessions. Volunteers learn the "how to" of organizing and leading Walking Clubs, and arranging and acting as hosts for Health Forums.

3.0 Volunteer-Led Activities

To ensure the success of regularly scheduled volunteer activities and to maintain volunteers' enthusiasm and effectiveness, the STAY WELL Coordinator: develops the volunteers' assignments and schedules at their individual centers in cooperation with center staff; assists in launching new classes; serves as a resource and consultant to volunteers and center staff; conducts monthly in-service meetings to sharpen skills and update volunteers; plans recognition events; and strengthens linkages with community health agencies.

4.0 Adaptations and Additions to the Program

To reach an even wider population, STAY WELL has initiated mini-courses and special events, not only at STAY WELL sites, but at other senior centers, organizations, and general community sites.

PROGRAM OVERVIEW: STAY WELL (Continued)

These activities supplement the ongoing programs established by volunteers on weekly, semi-weekly, bi-weekly, or monthly schedules.

Contact: STAY WELL
New York City Department for the Aging
Health Promotion Services
280 Broadway
New York, New York 10007
(212) 577-1757

PROGRAM OVERVIEW: GROWING YOUNGER/GROWING WISER

This program, developed by Healthwise, Inc., emphasizes the need for a new image of aging. The focus of *Growing Younger* is to create expanded awareness among older adults of the possibilities for improved vitality and enjoyment through good health practices. The core theme of *Growing Wiser* is to build the self-esteem of older adults, stress positive expectations, and develop a greater sense of empowerment and control.

1.0 Program Workshops

Through four 2-hour workshops, GROWING YOUNGER builds participants' understanding, motivation, and confidence to achieve the health improvements they most want to make. Topics include:

Fitness	How to improve flexibility, strength, and endurance to continue doing the things one most enjoys.
Nutrition	How to gradually improve diet without losing the joy of eating.
Stress Management	How to relieve muscle tension and avoid stress.
Medical Self-Care	How to improve the quality of care one receives both at home and from one's doctor.

Through four workshops, GROWING WISER develops within each participant an understanding and appreciation of their own wisdom and how it can improve their lives. Topics include:

Memory	How to improve it; how to protect it; combatting forgetfulness; and recognizing the changes in memory that lead to greater wisdom.
Mental Alertness	Maintaining mental vitality; medicine management; self-care for the blues; and the link between mind and body.
Loss and Life Change	Coping with crisis; helping others at a time of life change; and the relationship between wisdom and loss.
Choices for Living	Maintaining independence; assertiveness; exploring options for greater personal freedom; and controlling decisions that affect one and one's environment.

2.0 Sponsorship Agreement

Organizations wishing to sponsor these programs may enter into an agreement with Healthwise, permitting them to promote the program in their geographic area. Generally, there is no time limit on the sponsorship rights. Healthwise encourages sponsoring organizations to modify the program to best meet the needs and interests of their communities.

Source: Kemper, et al., 1986 and 1987.

PROGRAM OVERVIEW: GROWING YOUNGER/GROWING WISER (Continued)

A replication package is available to assist organizations with implementing the program. Available program materials include:

- **Organization, Promotion, and Evaluation Guide.**
- **Presenter Guide.**
- **TV public service announcement.**
- **Promotional slide show with script.**
- **Masters for logo and recruitment brochure.**
- **Flip chart guide sheets.**
- **Handbooks.**
- **T-shirts, buttons, stickers.**

Healthwise also offers instructor training for those planning to present the program. The training workshop gives practical solutions to ensuring high enrollment, presenter enthusiasm, community support, and a strong financial base.

Contact: Healthwise, Inc.
P.O. Box 1989
Boise, ID 83701
(208)345-1161

HANDOUT

PROGRAM OVERVIEW: STAYING HEALTHY AFTER FIFTY (SHAF)

Staying Healthy After Fifty (SHAF), is a collaborative effort of the American Red Cross (ARC), the American Association of Retired Persons (AARP), and the Dartmouth Institute for Better Health (DIBH). The program is designed to enable older Americans to maintain the capacity for independent living through:

- Acquisition of knowledge concerning good health practices and the availability of community services and health care resources.
- Development of skills related to the adoption and maintenance of a healthy lifestyle and the appropriate use of service agencies.

1.0 Program Sessions

Designed for older adults interested in health maintenance, health promotion, disease prevention, and the most efficient use of available medical care, the program encompasses 11 two-hour sessions, including:

- Health Care
- Health Problems and Emergencies
- Medications
- Common Health Conditions
- Chronic Conditions
- Lifestyle
- Exercise
- Nutrition
- Emotional Well-Being
- Being a Wise Consumer
- Self-Care Contract

2.0 Program Sponsorship

SHAF is sponsored through local AARP and ARC chapters. The program can also be co-sponsored with other community agencies. A local steering committee provides guidance and direction for implementation of the program in the community.

The SHAF program is provided by delivery teams consisting of two instructors and one facilitator. Delivery teams participate in a three-day SHAF training program.

Program materials include:

- Medical/Health Guide Book
- Participants Manual with Home Health Diary
- Handouts

Contact: Health Advocacy Division
American Association of Retired Persons
1909 K Street, NW
Washington, DC 20049
(202)728-4226

Handout

PRACTICAL CONSIDERATIONS FOR PROGRAM IMPLEMENTATION

Place your programs on these continuums. Assess the obstacles in your path and the corrective actions that may be undertaken.

Keys to Succes

Barriers

Needs Assessment

_____!_____!_____!_____!_____!_____!

We Knew What was Wrong — We Found Out What Issues Should Be Dealt With

Sponsorshop

_____!_____!_____!_____!_____!_____!

Drop Dead — They Love us

Community Marketing

_____!_____!_____!_____!_____!_____!

Turf Problems — Full Support

Staffing

_____!_____!_____!_____!_____!_____!

Help, I'm Alone — What a Team

Budget

_____!_____!_____!_____!_____!_____!

No Money! — Solid

Community Resources

_____!_____!_____!_____!_____!_____!

No Idea — Creative Thinking and Adaptations

Public Relations

_____!_____!_____!_____!_____!_____!

Total Unknown — We're Hot!

Recruitment

_____!_____!_____!_____!_____!_____!

Uphill Battle — In the Bag

Source: *Growing Wiser Presenters Guide*. Healthwise, Inc., Boise, ID.

Publicity: Sample Plan and Procedure

You may begin with a specialized "kick-off" event or with the first meeting of your program series. Either way, it is a good idea to target a date to publicly launch your program. To build public awareness and community interest around your launch date, you should develop a plan of action; a sample plan follows:

Time	Activity
2 months before	• Identify publicity and public relations vehicles; familiarize yourself with their operational procedures. - Newspapers (daily and weekly) - Radio and TV - Churches, synagogues, clubs, and other professional and social organizations - Word of mouth, etc.
	• If brochures and other promotional materials are being used (and their use is recommended), order extra for media distribution.
	• Prepare a "media kit" that includes background information, a news release, and the identity of the program's contact person; as well as other information specifically requested by media contact persons.
	• Prepare PSAs (radio and TV)
6 weeks before	• Hand deliver the TV PSA to your local stations. Make arrrangements for talk-show appearances.
	• Arrange for presentations to civic and social organizations.
1 month before	• Mail PSAs to radio stations
	• Mail press releases to weekly publications
	• Mail invitations to kick-off
	• Distribute fliers to local businesses:

Source: *Growing Wiser Presenters Guide*. Healthwise, Inc., Boise, ID.

Publicity: Sample Plan and Procedure (Continued)

3 weeks before	• Conduct telephone campaign
	• Mail news releases to daily publications
	• Replenish fliers as needed
2 weeks before	• Spokepersons appear on radio and TV talk show
	• Respond to inquiries
1 week before	• Follow through. Tie up loose ends. KEEP SMILING.
After	Thank everyone involved in the publicity of your program.

Source: *Growing Wiser Presenters Guide*. Healthwise, Inc., Boise, ID.

Score _____
Percentage _____

APPALACHIAN INTELLIGENCE TEST

If you score less than 14 (64%) on the test you are virtually failing and may conclude that you have a low Appalachian I.Q. As white middle class educators put it, you are "culturally" deprived.

Age _____ Male _____ Female _____

Do you live in Appalachia now? Yes _____ No _____ Where? _____
Have you ever lived in Appalachia? Yes _____ No _____
Have any of your ancestors lived in Appalachia? Yes _____ No _____

Circle the correct letter in each question.

1. If one came upon a run while outside, would it be a:
   a. a type of vine
   b. an animal which comes out only at night
   c. a small stream
   d. a type of wild growth

2. When a man cuts filth he is:
   a. cutting scrap meat
   b. mowing lawn grass
   c. cutting old clothes for burning
   d. mowing weeds and undergrowth

3. When a young girl is said to "git caught between the fence posts", is she:
   a. on the verge of death
   b. too fat to crawl between the fence
   c. pregnant and unwed
   d. undecided about something

4. To obtain a "poke" is:
   a. getting hit by their enemy
   b. winning from a card game
   c. getting moonshine at night
   d. getting a paper sack

5. A driftmouth is:
   a. a type of tree grown only in West Virginia
   b. opening of a coal mine
   c. trash at the head of a stream
   d. one who spreads idle gossip

6. The "Sang Diggers" are:
   a. popular country western singers
   b. people who hunt for wild root for medicinal purposes
   c. coal miners
   d. trappers

7. A "Ramp" is:
   a. a breed of sheep
   b. a small undernourished welfare child
   c. the loser in a poker game
   d. a wild onion

8. What is "privy"?
   a. a small insect that feeds on cattle
   b. an old rifle
   c. an outside john
   d. a wildflower

9. When one sees a "swamp rabbit" he is seeing a:
   a. a rabbit that lives in a swamp
   b. a muskrat
   c. a snake
   d. a person who lives near the swamps

10. An asafetite bag is placed around:
   a. the shoulder while on hunting trips
   b. around the neck while one is sick
   c. around the wrist of a young man who is about to be married

11. If one eats "poke" he is eating:
   a. a type of potato
   b. a type of wild greens
   c. a type of mountain fruit

12. Common fruit is:
   a. fruit which grows wild without any care or treatment
   b. fruit most often eaten by people such as apples, pears, etc...
   c. fruit which is available year around

13. If one ate a whistle pig he would be eating:
   a. skunk
   b. chipmunk
   c. groundhog
   d. rabbit

14. Coon's Age refers to:
   a. time that has lasped between something, especially since you have seen someone
   b. the age that an average coon lives
   c. an old man who is over seventy years old

15. If a baby has thrash it has:
   a. a toy made from corn silk
   b. a disease of the mouth
   c. a small pet
   d. a disease of the hair

16. Coughing in the face of a live _____ will cure whooping cough.
   a. dog
   b. catfish
   c. cat

17. Blood from a black hen will cure _____.
    a. warts
    b. ringworm
    c. hives
    d. sores

18. If one hears the expression "happy as a coon in the cornfield with the dogs tied up", it means:
    a. a person is so full he cannot eat any more
    b. a person is very contented
    c. a person who is only happy at farming

19. A mess of greens is:
    a. a pasture field filled with various types of wild flowers
    b. a portion of wild vegetables which one eats
    c. a group of young unmarried men

20. Copenhagen is a:
    a. fertilizer
    b. snuff
    c. cooking meat

21. Red Horse is:
    a. a type of chewing tobacco
    b. a brand of moonshine
    c. a type of potato

22. What is "Bonus"?
    a. a type of lye soap
    b. a type of chewing tobacco
    c. a type of hoe used to cultivate Chinese cabbage

Mona Counts and S. Barbara Kupchak. "The Dynamics of Family Caregiving for Older Patients." Presented at the Ohio Valley Appalachia Regional Geriatric Education Center, Summer Geriatric Institute, August, 1988.

Presentation Tips and Techniques

Program Atmosphere:

- Do what you can to ensure comfortable air temperature, humidity, and circulation..
- Adjust room lighting (and window shading) for best visibility.
- Arrange seating for maximum interaction. (Can participants easily see everything and each other for discussion purposes?)

Warm-Up Principles:

- Welcome people as they arrive.
- Give people something to do while others arrive.

  a. Pair-up and interview each other (be specific with the interview task), asking:

  - What do you hope to gain from this program?
  - Your most regular source of health information?
  - One thing people would be wise to do?
  - An area of health people should pay more attention to improving?

  b. Have people introduce the people they interviewed (using the interview answers).

- Promote communication among participants -- ask them to share ideas, insights, experiences on a specific issue or topic.

General Principles:

- Be enthusiastic. If you're excited about the program, content, and the people, participants will also be excited about it.
- Maximize participants' interaction whenever possible. Minimize lecturing, preaching, medicalizing.

  a. Leave your sandals at the door -- don't "should" them -- and don't be a guru.

  b. Ask questions and pause (uncover facts in response to questions).

  c. Ask for personal experiences.

  d. Stimulate discussion by telling a personal story or one you've experienced with a client ... let them identify with you, your experiences, and humor, too!

Source: *Growing Wiser Presenters Guide*. Healthwise, Inc., Boise, ID.

Presentation Tips and Techniques (Continued)

- Focus on:
  - a. *Self-Responsibility*. Make them feel in charge. It's their discussion. You focus it.
  - b. *Positive/Wellness Approach*. Stress the benefits of engaging in healthful behavior. Avoid preaching, put-downs, and finger-pointing.
  - c. *Promote Supportive Interaction*. Build people's experiences, knowledge, and ideas into the learning process ... facilitate people learning from each other.
- Encourage involvement and interaction:
  - a. Ask probing questions that people can understand and can answer. (Options: open/close-ended, experiences, explanatory.)
  - b. Verbally acknowledge responses to questions. Restate with response.
  - c. Write responses on flip-chart/board (in original words stated).
  - d. Avoid being judgmental, condescending, or aloof in your responses to what people comment on.....Search for the truths and humor in what they say.
  - e. Whenever possible, use small groups of 3 to 5 people to discuss issues.
  - f. Strive to build people's self-confidence in front of the group. Focus on the positives.
- Be somewhat flexible with content and time.
- Recognize each participant as:
  - a. Having been around for awhile, experiencing and seeing many things.
  - b. Decision makers.
  - c. Perhaps caring about the health of loved ones and friends.
  - d. Having their own personal health-related beliefs, values, and priorities.
  - e. Possibly struggling with a recent tragedy (health of self or loved one).
  - f. Being smart (many people are well-versed on health information).
  - g. Always looking for a good laugh.

Source: *Growing Wiser Presenters Guide*. Healthwise, Inc., Boise, ID.

Presentation Tips and Techniques (Continued)

- Move around ... change positions and change the pace.

  a. Keep random eye contact with the entire group.

  b. Move around amongst the group.

  c. Have group members move around, as well -- do a little stretching or break for refreshments.

- Be a leader in control -- when dealing with storytellers, non-traditional health suggestions, etc., use the SDS formula: Stroke, Divert, and Summarize.

  Principles

  a. No person should ever feel put down.

  b. Nobody should leave misinformed.

  c. Always search for and reinforce the "truths" within statements.

  Strategies

  a. Probe a person's own evaluation. (How do you feel about that?)

  b. Ask the group to evaluate the comment (versus the person). Examples:

     - "Great! It may work for you; however, keep in mind it may not work for everyone."
     - "That's a good point ... let's hold it for now ... we'll be talking about that later."
     - "The latest research says ..."

- Use props often (i.e., flip-charts, transparencies, handouts, demonstrations...).

- Tell a joke or humorous story whenever possible ... use good taste!

  a. Try to maintain a lighthearted attitude without becoming disrespectful.

  b. One technique is to bring a "bag of jokes/anecdotes" and to randomly select and read one every time people's attention starts to wander or the discussion becomes too oppressive for some.

Source: *Growing Wiser Presenters Guide*. Healthwise, Inc., Boise, ID.

Presentation Tips and Techniques (Continued)

- Be prepared:

  a. Know yourself, material, facts, tools, and objectives inside and out. Review, review, and review.

  b. Have alternative agendas and responses to questions.

  c. Maintain the best of an open mind -- acceptance and sensitivity toward each person. (Even the wise cracks! Remember, he who angers you, controls you!)

  d. Be cautiously confident and self-assured, but be open to suggestions and improvements.

  e. Strive for a spontaneous learning experience ... strive to "go with the flow" of the interests, dynamics, and emotions of the group, blending them with the program objectives.

Source: *Growing Wiser Presenters Guide*. Healthwise, Inc., Boise, ID.

Resources for Health Promotion with Older Adults

Where to go for ideas and more information:

American Association of Retired Persons (AARP) Health Advocacy Services 1909 K Street, NW Washington, DC 20049 (202)872-4700	Wide range of health promotion materials .
Age Base The Brookdale Foundation Group 126 East 56th Street New York, NY 10022 (212)308-7355	A computerized clearinghouse on direct service programs for older adults. Has comprehensive computer listings on wellness programs for a variety of settings.
Healthwise, Inc. P.O. Box 1989 Boise, ID 83701 (208)345-1161	A nonprofit health education and health promotion research and development center.
Healthy Older People Hotline 1-800-336-4797	Free hotline for professionals on consumer education and program models.
National Council on Aging 600 Maryland Avenue, SW Wing 100 Washington, DC 20024 (202)479-1200	Wide range of materials, especially useful for senior centers.
National Institute on Aging Information Office Building 31, Room 5C35 Bethesda, MD 20205	Age Page and other aging-related research and literature.
San Francisco Department of Public Health Alyonik Hrushow SRx Director, Office of Senior Services 1182 Market Street, Room 204 San Frnacisco, CA 94102	Medication misuse program materials.
Stanford Health Promotion Resource Center Health Policy & Research Bldg., Room 113 Stanford, CA 94305-5090	Compendium of community-based programs, solid research.

Resources for Health Promotion with Older Adults
(Continued)

RESOURCES/PUBLICATIONS

Dychtwald, Ken (ed.) *Wellness and Health Promotion for the Elderly*, Rockville, MD: Aspen Publications, 1986.

Pardini, Alan and Deborah Lerner. *Health Promotion for Older Persons: A Selected Annotated Bibliography*, San Francisco, National Policy Center on Health Promotion at the Aging Health Policy Center, Univ. of California, San Francisco, 1984.

U.S. Department of Health and Human Services. *Executive Summary: Aging and Health Promotion*, a report prepared by the Office of Disease Prevention and Health Promotion, Public Health Service, DHHS.

U.S. Government Printing Office. *Staying Healthy: A Bibliography of Health Promotion Materials*, Washington, DC: Superintendent of Documents, Stock Number: 047-913-QL3, 1983. Single copies free.

Kemper, Donald, et al. *Growing Younger Handbook*, 3rd edition (1987); *Growing Wiser: The Older Person's Guide to Mental Wellness, 2nd edition* (1988); and *Pathways: A Success Guide to a Healthy Life, 2nd edition* (1986), Boise, ID, Healthwise, Inc.

FallCreek, Stephanie and Molly Mettler. *A Healthy Old Age: A Sourcebook for Health Promotion for Older Adults*, New York: Haworth Press, 1984 and *Journal of Gerontological Social Work*, Vol. 6, Nos. 2/3, November, 1983.

Teague, Michael L. *Health Promotion: Achieving High Level Wellness in the Later Years*, Indianapolis: Benchmark Press, 1987.

National Council on Aging Publications. 600 Maryland Avenue, SW, Washington, DC 20024:

- *Compendium of Health Promotion-Related Initiatives for Older Adults*
- *Health Promotion and Aging: A National Directory of Selected Programs*
- *Health Promotion for Older Persons: A Selected Annotated Bibliography*
- *Health Promotion for Older Persons: A Selected Annotated Bibliography*
- *Health Promotion and Aging: Strategies for Action*
- *A Resource Guide for Drug Management Programs for Older Persons*

Resources for Health Promotion with Older Adults
(Continued)

GRANT RESOURCES

Read:

"Funding Health Promotion for Elders" by Martha Holstein in *Wellness and Health Promotion for the Elderly*. Edited by Ken Dychtwald, Aspen Publications, 1986.

The How-to Grants Manual, The Complete Grants Sourcebook for Higher Education, and *The Complete Sourcebook for Nursing and Health*. All by David Bauer of Bauer Associates, San Diego, CA.

Research:

Public/Private Partnerships in Aging: A Compendium. Published by the National Association of State Units on Aging and Washington Business Group on Health. 1987. Copies can be procured from:

NASUA
2033 K Street, Suite 304
Washington, DC 20016

Washington Business Group on Health
29 1/2 Pennsylvania Avenue, SW
Washington, DC 20003

Check the local library for:

- Foundation Directory
- Foundation Center Source Book Profiles
- Foundation Grants Index
- The Directory of Grants in Health
- National Directory of Corporate Giving
- Regional Association of Grantmakers (RAGS)
- Foundation News
- The Grantsmanship Center News

Dont' Forget:

- Your State Office on Aging
- The American Hospital Association Center for Health Promotion
- Local Corporations and Foundations
- Your Hospital Foundation

VI. Resources

Resources for Elderly

Company and Address	Item(s) Available
The Independence Factory P.O. Box C Middletown, OH 45042	Practical aids (zipper pulls, enlarged-handle toothbrushes, etc.) for those with hand and limb limitations.
American College of Surgeons Office of Public Information 55 East Erie Street Chicago, IL 60611	Free series of pamphlets on "When You Need an Operation."
National Organization for Victim Assistance 1757 Park Road, NW Washington, DC 20010	To learn about programs in the state or private assistance agencies designed to assist victims of crime.
Food and Drug Administration Bureau of Medical Devices Consumer and Regulatory Affairs Branck (HFK-131) 8757 Georgia Avenue Silver Spring, MD 20910	Advice on quack products and devices.
The Crime Prevention Coalition Box 6700 Rockville, MD 20850	Free brochure -- Senior Citizens Against Crime.
Council of Better Business Bureaus 1515 Wilson Boulevard Arlington, VA 22209	Pamphlet - Consumer Problems of the Elderly (enclose a SASE)
American Association of Retired Persons Criminal Justice Services 1909 K Street, NW Washington, DC 20049	For more information about crime prevention for older persons.
The American Society for Geriatric Dentistry 1121 West Michigan Street Indianapolis, IN 46202	A listing of dentists interested in aging patients.

Resources for Elderly (Continued)

Information Office National Institute on Aging Bethesda, MD 20205	For information about nutrition and aging.
American Podiatry Association 20 Chevy Chase Circle, NW Washington, DC 20015	For information on foot care.
NIA/AH Expand Associations 8630 Fenton Street, Suite 508 Silver Spring, MD 20910	Brochure - A Winter Hazard for the Old: Accidental Hypothermia
High Blood Pressure Information Center 120/80 National Institutes of Health Bethesda, MD 20205	For information on high blood pressure.
Elder-Ed P.O. Box 416 Kensington, MD 20740	Booklet - Using Your Medicines Wisely: A Guide for the Elderly
FDA HFE-88 5600 Fishers Lane Rockville, MD 20857	Free copy of large-type reprint of "Food and Drug Interactions" (postcard acceptable).
National Institute of Dental Research National Institutes of Health Bethesda, MD 20205	For information on dental research.
American Dental Association 211 East Chicago Avenue Chicago, IL 60611	Information on general dental care.
The National Institute of Allergy and Infectious Diseases Box AP National Institutes of Health Building 31, Room 7A32 Bethesda, MD 20205	Brochure - Flu.

Resources for Elderly (Continued)

SAMPLE OF ORGANIZATIONS CONCERNED WITH AGED MINORITIES:

National Center on Black Aged
1424 K Street, NW, Suite 500
Washington, DC 20005

National Pacific/Asian Resource
Center on Aging
927 15th Street, NW, Room 812
Washington, DC 20005

National Indian Council on Aging
P.O. Box 2088
Albuquerque, NM 87103

Association Nacional Pro Personas Mayores
1730 West Olympic Boulevard, Suite 401
Los Angeles, CA 90015

AGING AND EXERCISE

SELECTED REFERENCES

Barry, H. Exercise Prescriptions for the Elderly. American Family Physician. 34:155-62, 1986.

Brownell, K. Physical Activity in the Development and Control of Obesity. In "Obesity", ed. Stunkard, A.C., W.B. Sanders. 1980.

Chen, M.K. The Epidemiology of Self-Preceived Fatigue Among Adults. Preventive Medicine. 15:74-81, 1986.

Cunningham, D.A., et al. Ventilation Threshhold and Aging. Journal of Gerontology. 40: 703-707,, 1985.

Dychtwald, K. Wellness and Health Promotion for the Elderly. Aspen Publications. 1986.

Elliot, D.L. Nutrition and Exercise. Medical Clinics of North America. 69: 71-82, 1985.

Haskell, W., et al. Physical Activity and Exercise to Achieve Health-Related Physical Fitness Components. Public Health Reports. 100: 202-223, 1985.

Hugginbotham, M., et al. Physiologic Basis for the Age-Related Decline in Aerobic Work Capacity. The American Journal of Cardiology. 57:1374-79, 1986.

Keefe, F. and Blumenthal, J. The Life Fitness Program: A Behavioral Approach to Making Exercise a Habit. Therapeutic and Experimental Psychiatry. 11: 31-34, 1980.

LaFontaine, T. and Bruckerhoff, Diane. The Efficacy and Risk of Intense Aerobic Circuit Training in Coronary Artery Disease Patients Following Bypass Surgery. The Physician and Sports Medicine. 15:141-149, 1987.

Larson, Eric and Bruce, Robert. Health Benefits of Exercise in an Aging Society. Archives of Internal Medicine. 147:353-356, 1987.

McArdle, W., et al. "Exercise Physiology" Philadelphia, Sanders C. 1984.

Powell, K., et al. The Status of the 1990 Objectives for Physical Fitness and Exercise. Public Health Reports. 101: 15-21, 1986.

Smith, E. Special Considerations in Developing Exercise Programs for the Older Adult; in "Behavioral Health," ed. Matarazzo, et al. John Wiley and Sons. 1984.

Welle, J.M., et al. Reducing Metabolic Rates of Obese Women After Rapid Weight Loss. Journal of Clinical Endocrinology and Metabolism. 59:41-44, 1984.

INJURY PREVENTION

SELECTED REFERENCES

Baker, S., and A. Harvey. Fall Injuries in the Elderly. Clinics in Geriatric Medicine. Vol. 1., No. 3, August 1985.

Baker, S., O'Neill, B., and R. Karpf. The Injury Fact Book. Lexington, MA. Lexington Books. 1984.

Barbieri, E. Patient Falls are not Patient Accidents, J. of Gerontological Nursing, Vol. 9, No. 3, March 1983.

Berry, G., Fisher, R., and S. Lang, Detrimental Incidents, Including Falls, in an Elderly Institutional Population , J. of the Am. Geriatrics Society, Vol. 29, No. 7, 1981.

Cameron, C. Accident Prevention for Older People. Nursing Outlook. Vol.4. 1956.

Exton-Smith, A.E. and P. Overstall. Guidlelines in Medicine: Geriatric. Vol. 1. University Park Press. Baltimore, MD. 1979.

Fife, D., Barancik, J.I., and Chatterjee, B.J. Northeastern Ohio Trauma Study: II Injury Rates by Age, Sex, and Cause. Am. J. Public Health. 74. 1984.

Gordon, M., Huang, M., and C. Gryfe, An Evaluation of Falls, Syncope, and Dizziness by Prolonged Ambulatory Cardiographic Monitoring in a Geriatric Institutional Setting, Am. Geriatrics Society, Vol. 30, No. 1, January 1982.

Gryfe, C., Amies, A., and M. Ashley, A Longitudianl Study of Falls in an Elderly Population: I. Incidence and Morbidity, Age and Ageing, Vol. 6, 1977.

Haupt, B.J., and E. Graves. Detailed Diagnoses and Sergical Procedures for Patients Discharged form Short-Stay Hospitals: United States, 1979. DHHS Pub. No. (PHS) 82-1274-1. U.S. DHHS, Washington, DC. 1982.

Kalchthaler, T., Bascon, R., and V. Quintos, Falls in the Institutionalized Elderly, J. of the Am. Geriatrics Society, Vol. 26, No. 9, 1978.

Kane, R. and S.B. Arnold. Prevention and the Elderly: Rick factors. Health Services Research. Vol.9, No. 6, Feb. 1985.

Lawton, A. Accidental Injuries to the Aged. Gerontologist. 5, 1965.

INJURY PREVENTION

SELECTED REFERENCES

(Continued)

Louis, M., Falls and Their Causes, J. of Gerontological Nursing, Vol. 9, No. 3, March 1983.

Margulec, I., Librach, G., and M. Schadel, Epidemiological Study of Accidents Among Residents of Homes for the Aged, J. of Gerotology, Vol.25, No. 4, 1970.

Perry, B.C. Falls Among the Elderly: A Review of the Methods and Conclusions of Epidemiologic Studies. Journal of the American Geriatrics Society. 30. 1982.

Rodstein, M., Interrelations of the Aging Process and Accidents. J. of the Am. Geriatrics Society, Vol. 20, No. 3, March 1972.

Rodstein, M. and A. Camus. Interrelation of Heart Disease and Accidents, Geriatrics, Feb. 1973.

Sehested, P. and T. Severin-Nielsen. Falls by Hospitalized Elderly Parients: Causes, Prevention. Geriatrics. April 1977.

Snipes, G. Analyses and Prevention of Falls. Geriatric Consultant. 1. 1983.

Waller, J. Falls Among the Elderly -- Human and Environmental Factors. Accid. Anal. and Prev., Vol. 10, 1978.

Wild, D., Nayak, U., and B. Isaccs, Description, Classification and Prevention of Falls in Old People at Home, Pheumatology Rehabilitation, Vol. 20, 1981.

COMMUNICATING WITH OLDER ADULTS: CULTURAL AND ETHNIC CONSIDERATIONS SELECTED REFERENCES

American Association of Retired Persons Minority Affairs Initiative. (1986). A Portrait of Older Minorities. Washington, DC: American Association of Retired Persons.

Baker FM. (1982). Ethinic and cultural variations in the care of the aged. Discussion: The black elderly: Bio[sychosocial perspectives within an age cohort and adult development context. Journal of Geriatric Psychiatry, 15, 225-237.

Back ML & Bernstein AB. (1982). Regular source of care and the minority aged. Jounal of the American Geriatrics Society, 30, 251-154.

Boyd EL, Shimp LA & Hackney MJ. (1984). Home Remedies and the Black Elerly. Ann Arbor, MI: University of Michigan.

Carter JH. (1982). The black agedL Implications for mental health care. Journal of the American Geriatrics Society, 30, 67-70.

Conway K. (1985). Coping with the stress of medical problems among black and white elderly. International Hournal of Aging and Human Development, 21, 39-47.

Flaskerud JH. (1986). The effects of culture-compatible intervention on the utilization of mental health services by minority clients. Community Mental Health Hournal, 22, 127-141.

Gelfand DE & Barresi DM. (Eds.). (1987). Ethnic Dimensions of Aging. New york: Springer Publishing Company.

Gelfand DE& Kutsik AJ. (Eds.). (1979). Ethnicity and Aging: Theroy, Research and Policy. New York: Springer Publishing Company.

Holmes D, Holmes M, Steinbach L, Hausner T, & Rocheleau B. (1979). The use of community-based services in long-term care by older minority persons. The Gerontologist, 19, 389-397.

Hubbard RW & Santos JF. (1981). Empathy training as an instructional tool for geriatric health professionals. Educational Gerontology, 6, 191-194.

Kastenbaum R. (1979). Reflections on old age, ethnicity, and death in Gelfant &Kutzik. Thnicity and Aging: Terory, Research and Policy.

Krause N. (1987). Stress in racial differences in self-reported health among the elderly. The Gerontologist, 27, 72-76.

Kushman JE & Freeman BK. (1986). Service consciousness and service knowledge among older Americans. International Journal of Aging and Human Development, 23, 217-237.

COMMUNICATING WITH OLDER ADULTS: CULTURAL AND ETHNIC CONSIDERATIONS SELECTED REFERENCES

(Continued)

LaFargue JP. (1985). Mediating between two views of illness. Topics in clinical nursing, 7, 70-77.

Maduro R. (1983). Curanderismo and Latino views of disease and curing. Western Journal of Medicine, 139, 868-874.

Manuel, RC. (ed) (1982). Minority Aging. Westport, CT: Greenwood Press.

Markides KS & Mindel CH. (1987). Aging and Ethnicity. Newbury Park, CA: SAGE Publications, Inc.

Marks G, Solis J, Rchardson JL, Collins LM, Birba L, &Hisserrick JC. (1987). Health behavior of elderly Hispanic women: Does cultural assimilation make a difference? American Journal of Public Health, 10, 1315-1319.

Morycx RK. (1985). Caregiving strain and the desire to institutionalize family members with Alzheimer's disease. Research on Aging, 7, 329-361.

Muecke MA. (1983). In search of healers-Southeast Asian refugees in the American health care system. Western Journal of Medicine, 139, 835-840.

New PK, Henderson JN, Mangum W, & Rich T. (1985). Special Issue on Aging and Ethnicity. Journal of Applied Gerontology, 4, Number 1.

Simon JW. (1987). Health care of the elderly in Appalachia. Journal of Gerontologial Nursing, 13 (7), 32-34.

Snow LF. (1983). Traditioanl health beliefs and practices among lower class Black Americans. Western Journal of Medicine, 139, 820-828.

Thirderman SB. (1986). Ethnocentrism: A narrier to effective health care. Nurse Practitioner, 11(8), 52-54, 59.

Watson WH. (Ed.). (1984). Balck Fold Medicin. New Brunswick, NJ: Transactoin Books.

Weaver C & Sklar D. (1980). Diagnostic dilemmas and cultural diversity in emergency rooms (Health Care Delivery). Western Hournal of Medicine, 133, 356-366.

Wright R, Creecy RF & Berg WE. (1979). The black elderly and their use of health care services: A causal analysis. Journal of Gerontological Social Work, 2, 11-28.

VII. Readings

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When Medicine Becomes Harmful

Book Alerts Public to Avoid Drug-Induced Poisoning of Elderly

By Molly Sinclair
Washington Post Staff Writer

About the time that the woman, who was in her seventies, began taking the antiulcer medicine prescribed by her doctor, she began to behave in a bizarre way. She became forgetful. She seemed confused.

"But within one week after being removed from the drug, the woman was clearheaded again," said Rose Ann Soloway, education coordinator for the National Capital Poison Center at Georgetown University Hospital.

Soloway cited the case to illustrate the kind of adverse reactions that older people can have to their medications and the effort they make to obtain information about the problem.

"We strongly urge that they talk to the physician who prescribed the drug," she said.

That is the consensus of many medical experts, including Sidney M. Wolfe, the public health advocate who announced the completion yesterday of a new 532-page guide explaining the benefits and risks of drug use in older adults and listing 104 "do not use" drugs and 183 alternatives considered safer.

"We have an epidemic of drug-induced poisoning of older people, and it needs to be stopped," said Wolfe, who founded the Public Citizen Health Research Group with Ralph Nader in 1971.

Wolfe said the group's research had found that reactions to prescription drugs can lead to illness and death.

He estimated that each year there are "approximately 61,000 older adults with drug-induced parkinsonism, 32,000 with hip fractures attributable to drug-induced falls, 163,000 with drug-induced or worsened memory loss or impaired thinking, 243,000 who have to be hospitalized because of adverse drug reactions and hundreds of thousands with drug-induced dizziness or fainting."

Titled "Worst Pills, Best Pills: The Older Adult's Guide to Avoiding Drug-Induced Death or Illness," the book is available for $12. The information was based on published material about the drugs. In addition, Wolfe said, the drug information was reviewed by 18 medical advisers.

The U.S. Food and Drug Administration declined to comment on the book.

"We haven't seen it," said Faye Peterson, an FDA spokeswoman, "but we consider it an important subject. In general, doctors do have to be careful about prescribing drugs for the elderly, they have to be mindful of dosages and other drugs that the elderly person may be taking."

Evan Hadley, chief of the geriatrics branch of the National Institute on Aging, said that "it is quite common" for elderly people to have adverse reactions to the medicine prescribed for them.

One reason, Hadley said, is that "the dose may be wrong, because in some older people the clearance rate for the drug can be slower, so it stays around longer [in the body] and tends to accumulate and gets into the overdose range."

Some drugs also have side effects that are especially troublesome for older people, who may be taking several drugs that may interact with one another, Hadley said.

The Senate Committee on Aging found that 17 percent of the U.S. population is aged 60 or more, but this group accounts for 51 percent of the deaths from adverse reaction to prescription and over-the-counter drugs.

RULES FOR SAFER USE OF MEDICATION

- Have a "brown bag session with your doctor. Bring in all of your drugs and fill out a worksheet (described below) with your doctor.
- Read about the drugs you are taking to find out if you are having any adverse reactions.
- Assume that any symptom you develop after starting a new drug may be caused by the drug. If you have a new symptom, report it to your doctor.
- Make sure drug therapy is really needed for your medical condition. Ask your doctor to explain all the alternatives.
- If drug therapy is indicated, in most cases it is safer to start with a dose that is lower than the usual adult dose.
- When adding a drug, see if it is possible to discontinue another drug you are taking. The fewer medications you take, the better.
- Stopping a drug is as important as starting it. Do not take a drug any longer than is necessary.
- Before leaving your doctor's office or pharmacy, make sure the instructions for taking your medicine are clear to you and a family member or friend.
- Discard all old drugs—carefully. Avoid the possibility that they might be taken inadvertently.
- Ask your primary care doctor to coordinate your care and drug use.

NOTE: A drug worksheet should list for each drug: the generic name of drug; doctor's name; start and change dates of prescriptions; reason drug prescribed or changed; dosage; times per day; time of day to be taken; how long drug should be continued; problems that drug could cause; interactions of drug with other drugs or food; diet recommendations; how you are taking drug; new problems or complaints since drug started; and whether drug is working.

SOURCE: Public Citizen Health Research Group

THE WASHINGTON POST

Reprinted with permission from the American Geriatrics Society, Factors Associated with Serious Injury During Falls by Ambulatory Nursing Home Residents, by Mary E. Tinetti, Journal of American Geriatrics Society, 35: 644-648, 1987.

Factors Associated with Serious Injury During Falls by Ambulatory Nursing Home Residents

Mary E. Tinetti, MD

Recognizing the importance of identifying fallers at risk for injury, the author studied factors associated with injury during falls by ambulatory nursing home residents. Forty-eight of 79 subjects (61%) fell during their first year of residence. Fourteen fallers suffered a serious injury. Among fallers, subjects with lower extremity weakness were more likely to be injured than were fallers without weakness (42 versus 12% injured). On the other hand, injured fallers needed less help than noninjured fallers (14% needed help with at least 2 activities of daily living versus 35%), and were less likely to be depressed than were noninjured fallers (7 versus 38%). Although frequently associated with falling, no injury occurred while rising from a chair. The contribution of environmental hazards was not well defined. The only acute factor distinguishing noninjurious from injurious falls was a recent previous fall (present in 30% of the former and 0% of the latter). The finding that injured fallers tend to be more independent, yet have greater lower extremity weakness, than noninjured fallers suggests that both components of injury, namely force of impact and protective responses of the faller, may contribute to likelihood of injury during a fall. This study suggests that if predictive characteristics of the injury-prone faller, or the fall, can be identified, preventive strategies could be targeted at the high risk group. J Am Geriatr Soc 35:644–648, 1987

Thirty to 40% of nursing home residents fall each year.[1,2] However, recent studies suggest that only 1 to 5% of these falls result in fracture, and 5 to 10% in severe soft tissue injuries.[1,3] Recent research efforts have concentrated on identifying important factors contributing to falls. The number and severity of chronic problems such as visual and proprioceptive abnormalities, musculoskeletal diseases, depression, and dementia are associated with falling as are acute processes such as dysrhythmias and orthostasis.[2,4–8] Environmental hazards appear to be less important than intrinsic factors in nursing home falls.[9–11]

Although much has been learned about falling in general, we still know very little about the factors distinguishing injurious from noninjurious falls. Because injury is the morbid outcome of concern in nursing home falls, the ability to predict and prevent the injurious fall would have great clinical relevance for elderly persons residing in nursing homes. Without knowledge of distinguishing characteristics, nursing home staff must treat all fallers the same. Often this means restraining all fall-prone residents (defined as a history of frequent falling).

If predictive characteristics of the faller, or the fall, associated with serious injury could be identified, preventive measures could be targeted toward these characteristics and individuals. Likelihood of injury has been postulated to be related to the force of impact of the fall as well as the protective responses of the

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faller.[12] Protective responses refer to factors within the faller that come into play once a fall becomes inevitable to either cushion or decrease impact. Therefore, injuries could be more likely either in the more active faller (increased force of impact) or the frailer faller (decreased protective responses).

The present study evaluates the contribution of chronic characteristics, acute problems, and environmental factors leading to possible injury during falls by nursing home residents.

MATERIALS AND METHODS

Subjects and Setting Seventy-nine subjects were involved in an earlier study evaluating the contribution of chronic disabilities to falling.[2] The present study addresses predictors of injury among the subjects who fell during a one-year follow-up period. The subjects were consecutive, first time admissions to the three largest Intermediate Care Facilities in Rochester, New York between September 1, 1982 and February 28, 1983 and were at least 60 years of age and independent, or required only minimal assistance with eating, dressing, bathing, continence, toileting, and transferring. All were ambulatory at least to the bathroom and dining room. The mean age of the subjects was 79 years of age (range, 61 to 92 years); 68% were women. Based on chart diagnoses, subjects suffered from an average of three chronic diseases including dementia (40%), visual abnormalities (46%), cardiovascular disease of any type (59%), musculoskeletal or rheumatic diseases (48%), and neurologic diseases with manifestations such as prior stroke or Parkinson's disease (29%). Fifty-nine percent used a walking aid such as cane or walker.

The facilities had similar safety features such as nonskid floors, obstacle free hallways, handrails in hallways, raised toilet seats, and good lighting. Subjects rarely left the facilities unsupervised or used the stairway. Subjects were, however, unsupervised much of the time within the facility.

Data Collection Baseline data for this study included mental status (Set Test), morale (Philadelphia Geriatric Morale Scale), activities of daily living (ADL) functioning (modified from Katz), postural blood pressure changes, vision and hearing testing, thorough neurologic and musculoskeletal examinations, and balance and gait evaluations.[2,13-15]

During the year follow-up, information was obtained concerning the amount of physical activity relative to other residents (head nurse judgment), significant medical and health events, medications, and depression (if mentioned in chart by nurse or physician). This information was ascertained by chart reviews and discussions with head nurses.

Fall-related data included the number of, and time between, falls (frequent fallers fell during three separate 2-month periods or had at least four falls), activity at the time of each fall, and acute and environmental factors present. Environmental hazards were obstacles that might cause some healthy, fit people to fall (eg, broken chair, wet floor). A walking aid (cane, walker, or wheelchair) was considered to have been used inappropriately only if specifically mentioned in the incident report. Acute factors included acute illnesses that would have led to activity restriction in most healthy people (eg, pneumonias), as well as overwhelming acute neurologic or cardiac events causing loss of consciousness or neuromuscular control (eg, syncope, seizures). This information was ascertained by review of incident reports and subjects' charts.

Outcome Serious injury from a fall was defined as all nonvertebral fractures; all other injuries resulting in stay in the emergency room for more than 24 hours (not for purpose of X-rays alone), admission to acute hospital, bedrest for more than 48 hours, or restriction in activity for more than 72 hours.

Statistical Analysis Associations between dichotomous variables were analyzed by the chi-square test when marginal frequencies were all greater than 5 and by the Fisher-Irwin exact test when a marginal frequency was less than 5.[16]

RESULTS

Forty-eight subjects (61%) fell at least once during the one-year study period. Twenty-four fallers fell frequently (see definition under Materials and Methods section). Fourteen fallers suffered a serious injury during one of their falls. The serious injuries included six fractures (one hip, two pelvic, two humeral, one rib), two vertebral compression fractures requiring prolonged bedrest, two knee hemarthroses, two cerebral contusions, one large pelvic hematoma requiring bedrest, and one severe ankle sprain requiring casting. The other 34 fallers either suffered no injuries or suffered only minor injuries such as bruises, sprains not requiring bedrest, lacerations, or abrasions during their falls.

Fourteen of the 220 documented falls (6%) during the study period resulted in a serious injury. Three percent of falls resulted in a nonvertebral fracture (six fractures in 220 falls). No faller accounted for more than one serious injury.

Characteristics of Injured Fallers Neither age, sex, baseline morale score, specific diagnoses, postural blood pressure, visual acuity, balance and gait assessment, nor medication use distinguished injured from noninjured fallers. Injured fallers were less often judged depressed during the year and needed less

TABLE 1. CHARACTERISTICS OF FALLERS ACCORDING TO INJURY STATUS

Characteristics	Noninjured Fallers (N = 34)	Injured Fallers (N = 24)	% With Characteristic Injured v % Without Characteristic Injured
Baseline			
Age (mean ± S.D.)	81(± 6)	80(± 10)	
Female	24(71)	12(86)	33 v 17%(1.9)*
Poor Mental Status (Set Test <25/40)	15(44)	9(64)	38 v 21%(1.8)
Decreased lower extremity strength	18(53)	13(93)	42 v 12%(3.5)†
Needs help with more than 2 of 6 ADL	12(35)	2(14)	14 v 35%(0.4)‡
Study Period			
Less active than other residents in facility	14(41)	4(29)	22 v 33%(0.7)
Depressed	13(38)	1(7)	7 v 38%(0.2)‡
Restrained more than 2 times	13(38)	3(21)	19 v 34%(0.6)
Fell frequently	19(56)	5(35)	21 v 38%(0.6)
Average number of days between falls	25	83	

*Relative risks.

†$P \leq 0.5$.

‡$P \leq 0.1$

help with ADL than noninjured fallers (Table 1). On the other hand, injured fallers were almost four times more likely to have lower extremity weakness (Table 1). The etiologies of the lower extremity weakness could not always be ascertained from the chart or examination. However, only two of the 13 seriously injured fallers, and five of the 18 nonseriously injured fallers, with lower extremity weakness had a documented stroke with hemiparesis. In the remaining cases, the weakness, while perhaps greater on one side, was bilateral.

Although more independent, injured fallers fell less often than noninjured fallers (Table 1). Among the 24 frequent fallers, there were five serious injuries in 180 falls (3%). This contrasts with nine serious injuries in 40 falls among the 24 infrequent fallers (23%; $P < .05$).

Environmental and Acute Fall-Related Factors In 185 of the 220 falls (84%) activity at the time of the fall was known. In most of the remaining 35 falls, the subject was found on the floor and was unable to recount events. Most falls occurred during basic activities. There was no single activity more likely to be associated with injury, although no injury occurred while getting up from a sitting position (Table 2).

The inappropriate or incorrect use of a walking aid was the most common external or environmental factor associated with falling, occurring in 23 falls. Seven falls occurred while the subject was restrained. There was no difference in environmental contribution to injurious or noninjurious falls.

A recent fall was associated with 27% of falls. In some cases, these falls were during an acute illness, but the majority of time a coexisting acute illness could not explain the back-to-back falls (Table 2). No serious injury occurred during one of these back-to-back falls. Acute illnesses and acute medication toxicity occurred with equal frequency in injurious and noninjurious falls (Table 2).

DISCUSSION

Fallers in this study who sustained a serious injury were more likely to have lower extremity weakness while at the same time were more independent in ADL and were judged less depressed than fallers who did not sustain a serious injury. The more active fallers may fall with greater impact; this may partially explain their greater frequency of injury. The association between lower extremity weakness and injury was interesting, especially given the fact that the injured fallers were more active despite their greater weakness. The lower extremity weakness was usually not explained by a specific process such as stroke (ie, the injuries were not merely due to hemiplegia). A possible explanation for the association between lower extremity weakness and serious injuries is that the reflex actions that decrease impact once a fall becomes inevitable are impaired in fallers with leg weakness.

The lack of association between environmental factors and injury may appear to make force of impact an unimportant factor in injury. However, a more likely reason for the infrequency of environmental contributors is that incident reports do not supply sufficient data. While major hazards were not missed, it is likely that objects or obstacles that would not be considered a hazard in younger, fitter subjects (eg, poor fitting shoes, too long pant legs) were missed. If these minor obstacles or hazards increase risk of injury with a fall, some injuries could be prevented through closer attention to these details.

The presence of transient factors such as acute ill-

TABLE 2. FALL-RELATED FACTORS ACCORDING TO INJURY STATUS

	Injured Fallers*		Noninjured Fallers*
	Injurious Falls (N = 14)	Noninjurious Falls (N = 44)	All Falls (N = 162)
Activity			
Getting into or out of bed	2(17)†	7(21)	41(29)
Getting up from sitting	0(0)	10(30)	23(16)‡
Sitting down	1(8)	4(12)	10(7)
Standing still (just went down)	1(8)	0(0)	11(8)
Reaching, bending, performing ADL	2(17)	1(3)	17(12)
Walking	6(50)	11(33)	38(27)
Unknown	2	11	22
Environmental factors			
Hazard	2(17)†	3(9)	5(4)
Walking aid used incorrectly	1(8)	3(9)	19(14)
Restrained at time of fall	0(0)	3(9)	4(3)
Acute Factors			
Previous fall within seven days	0(0)	13(30)	46(28)‡
Acute illness	1(7)	2(5)	12(7)
Overwhelming process	0(0)	0(0)	6(4)
Acute medication toxicity mentioned by nurse	1(7)	4(9)	15(9)

*There were 14 injured fallers and 34 uninjured fallers.

†Percentages for activity and environmental factors calculated using only cases where activity at time of fall was known.

‡P < .05 injurious v noninjurious falls (column 1 v columns 2 and 3)

ness and medication toxicity was as common in injurious as in noninjurious falls. The one exception to this was the occurrence of succeeding falls. Thirty percent of noninjurious, but no injurious, falls occurred during this postfall period. The most likely explanation is that these back-to-back falls occurred in the frequent fallers who were the subjects least likely to get injured. This lack of injury among the frequent faller group may have been due to less force in impact resulting from their greater frailty (frequent fallers had more disabilities with the exception of lower extremity weakness). Murphy and Isaacs describe a postfall syndrome characterized by a transient deterioration in balance and gait following a fall not explained by a neurological or musculoskeletal condition.[17] This transient deterioration may explain the high risk of falling in the period after a previous fall.

The lack of injury during falls while getting up from a chair was an interesting finding. Injured fallers had 36% of their total falls while rising from sitting, so a difference in fall-related activities between the two groups is not the explanation. Melton notes that height of the fall is important for injury and the distance is less from a chair than from a standing position. Also, perhaps, people were more careful when getting up because rising is identified as a difficult maneuver. Therefore, while the subjects still fell, they may have been more guarded, and, therefore, had less impact. This finding needs to be verified in future studies.

The author choses to use nurses' judgment about activity level and nurses' and physicians' judgment about depression rather than use specific instruments. In the case of the former, there are no instruments available relevant to this population and setting that address both mobility and participation in activities. In the case of the latter, we wanted a measure of depression that spanned the year, not just arbitrary points when a questionnaire could be administered. There is good correlation between clinical judgment of depression and questionnaire results. Nurses and physicians were unaware of our study purpose.

Although the number of subjects involved in this study was small, our results do at least question the appropriateness of the present approach to falling in many long-term care facilities. Restraints are most commonly used with frequent fallers who are inactive. However, in our study, this was the group least likely to suffer a serious injury. While the use of restraints may explain some of this lack of injury, falls continued to occur in this group even after restraints were initiated (restraints usually were used intermittently). Studies are needed that are designed specifically to identify the role of restraints in injury prevention.

While the numbers involved were small, we did find that observing both faller characteristics as well as events occurring at the time of falls is an appropriate method for identifying not only to whom, but under what circumstances, injuries are likely to occur. Although not the only morbid outcome from falling, injury is the outcome nursing home physicians, nurses, and aides are most concerned about preventing. Therefore, the ability to distinguish the faller at risk for serious injury would allow preventive strategies to be targeted at the high risk group and would spare unnecessary restrictions on the low risk faller. Future studies in this area should include larger number of subjects, more reliable identification of fall circumstances, and analysis of combinations of factors.

REFERENCES

1. Gryfe CI, Amies A, Ashley MJ: A longitudinal study of falls in an elderly population: I. Incidence and morbidity. Age Ageing 6:201, 1977
2. Tinetti ME, Williams TF, Mayewski R: A fall risk index based on number of chronic disabilities. Am J Med 80: 429, 1986
3. Morris EV, Isaacs B: The prevention of falls in a geriatric hospital. Age Ageing 9:181, 1980
4. Campbell AJ, Reinken J, Allan BC, et al: Falls in old age: A Study of frequency and related clinical factors. Age Ageing 10:264, 1981
5. Prudham D, Evans JG: Factors associated with falls in the elderly: A community study. Age Ageing 10:141, 1981
6. Wild D, Nayak USL, Isaacs B: Characteristics of old people who fell at home. J Clin Exp Gerontol 2:271, 1980
7. Tobis JS, Nayak L, Hoehler F: Visual perception of verticality and horizontality among elderly fallers. Arch Phys Med Rehabil 62:619, 1981
8. Overstall PW, Exton-Smith AN, Imms FJ, et al: Falls in the elderly related to postural imbalance. Br Med J 1:261, 1977
9. Margulec I, Librach G, Schradel M: Epidemiological study of accidents among residents of homes for the aged. J Gerontol 24:342, 1970
10. Ashley MJ, Gryfe CI, Amies A: A longitudinal study of falls in an elderly population: II. Some circumstances of falling. Age Ageing 6:211, 1977
11. Sehested P, Severin-Nielsen T: Falls by hospitalized elderly patients: Causes, prevention. Geriatrics 4:101, 1977
12. Melton LJ, Riggs BL: Risk factors for injury after a fall. Clin Geriatr Med 1:525, 1985
13. Isaacs B, Kennie AT: The Set Test as an aid to the detection of dementia in old people. Br J Psychiatry 123:467, 1970
14. Lawton MP: The Philadelphia Geriatric Center Morale Scale: A revision. J Gerontol 30:85, 1975
15. Katz S, Downs TD, Cash HR, et al: Progress in development of the Index of ADL. Gerontologist 10:20, 1970
16. Fleiss JL: Statistical methods for rates and proportions. 2nd ed. New York, John Wiley and Sons, 1981, p 25
17. Murphy J, Isaacs B: The postfall syndrome. Gerontology 28:265, 1982

PAPERS PREPARED BY THE NATIONAL INSTITUTE ON AGING FOR THE WHITE HOUSE CONFERENCE ON AGING (WHCoA)

Injury in Late Life:
Part I. Epidemiology

CAROL C. HOGUE, RN, PhD*

Epidemiologic studies show that injury is a nonrandom event of considerable consequence to older people. Even though children have the highest injury rates for all injuries combined, the elderly have the highest death rates and the highest dysfunction and disability rates from falls, fires and contact with hot substances, and vehicular crashes.

There are notable race and sex differences in injuries in the elderly. Women have higher rates of injury from falls than men. Men have higher injury rates from burns and motor vehicle crashes (including pedestrian injuries), and for each of the three categories of injury men have higher death rates than women. Before the age of 75, nonwhite males have the highest rates of death from injury. At 75, however, white males cross over to have a much higher rate of death from injury than do nonwhite males.

More than half the deaths due to unintentional injury in persons 65 and older are caused by falls. White men have the highest death rates from falls, followed by white women. More than a fourth of the injury fatalities for people 65 and older are from motor vehicle crashes. More than 9.3 per cent of all licensed drivers are 65 or older. Older drivers drive fewer miles than other people, and they tend to limit their driving to daytime and to relatively less stressful conditions. Nonetheless, when miles driven by drivers over 64 are taken into account, the relatively small number of crashes is equivalent to a crash rate exceeded only by the under-25 age group. Pedestrian deaths account for more than a third of motor vehicle deaths to people 65 and older. The death rate from burns is higher in the elderly than in any other age group, including young children. In the event of thermal injury, old people are much less likely to survive.

Diminished ability to perceive hazard and to respond effectively contributes to higher injury rates among the elderly, as does lower injury threshold.

INTRODUCTION

An injury is no accident in any age group, and the heavy consequential burden of disability and death borne by the elderly who are injured is more than a reflection of fate or chance. For all injuries combined, population-based death rates are highest in the elderly, and they are twice as high for people 75 to 84 years old as for those 15 to 24 years old, the group with the second highest death rates due to unintentional injury.[1] To put it another way, the older population is over-represented in deaths due to injury. In a recent year (1978) 22.9 per cent of all fatal injuries occurred to the 10.7 per cent of the population who were 65 or older.

It is not true, however, that a high death rate from injury is associated with a high injury rate. Although the method of data collection in the Health Interview Survey provides a conservative estimate of events for the elderly, injury rates are substantially lower among the elderly than in younger persons. Overall, then, older people have low injury rates compared with other age groups, but high case fatality rates. In addition, rates of days of restricted activity and of disability in bed and hospitalization due to injury are relatively high in older people. For example, the injury rate among people 65 years and over is only 57 per cent of the injury rate for children 6 to 16 years old, yet old people have 2.8 times as many days of restricted activity as 6- to 16-year-

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This paper is part of a longer paper prepared for the 1981 White House Conference on Aging. Portions of this paper were presented at a symposium on mortality trends among the elderly, November 21, 1977, 30th Annual Meeting of the Gerontological Society, San Francisco.

Throughout this paper, unless otherwise noted, mortality data for 1969, 1975, and 1978 are from the Underlying Cause of Death Statistics, 100 per cent samples, for each of those years. Unintentional injury includes in this analysis *W.H.O. International Classification of Diseases, External Causes*, E 810–E 949; E 980–E 989. Postcensal estimates of the United States Population since 1970 are inaccurate, especially in the older age groups, and must be recalculated. The Bureau of the Census anticipates publication of the *Preliminary Intercensal Estimates of the Population* in early 1982; after that time the author will provide recalculated rates upon request.

Crossover effect refers to the observation that prior to age 75, nonwhite males have the highest death rates. At age 75, white males "cross over" and have higher death rates.

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olds and almost three (2.99) times as many days of disability in bed due to injury each year. Therefore, even though in absolute numbers injuries in older people are relatively few, the disability, dysfunction, utilization of health services, and death rates in relation to injury are reasons for further scientific efforts, development of new approaches, and application of available technology.[2]

There are notable race and sex differences in injuries in the elderly. Women have higher rates of injury from falls than men. Men have higher rates from burns and motor vehicle crashes (including pedestrian injuries), and for each of the three categories of injury men have higher death rates than women. Before the age of 75, nonwhite males have the highest rates of death from injury. At 75, however, white males cross over to have a much higher rate of death from injury than do nonwhite males.

There are also differences in the distribution of types of deaths from injury in the elderly before and after 75. In the 65 to 74 age group, slightly over a third of deaths from injury are due to motor vehicles, and just under one fourth are attributed to falls. In persons over 74, more than half the deaths from injury are due to falls, and less than one fifth are caused by motor vehicles. Approximately 8 per cent in both age groups are related to fire and contact with hot substances, and the remainder are scattered among several categories.[3] Before research is reviewed in each of the classes of injury that are particular problems to older people, however, conceptual issues related to definition of accidents or injury will be noted, and an epidemiologic approach to injury will be explained.

Prior to this century epidemics of infectious disease probably allowed for little study of injury; and certainly the germ theory, with its emphasis on an infectious external agent, left injury as an "accidental happening" without any rational, observable explanation. Injury (or so-called accidents) came to be viewed as a health problem in the 1930s and 1940s; it has never in any sustained way been studied with the same rigor accorded disease.

The word "accident" will continue to be used commonly by lay people, but epidemiologists have by and large stopped using that term, replacing it with "injury" or "injury events."[4] "Accident" refers to a random or chance event, yet existing data indicate that accidents, like diseases, are nonrandom events. The term "accident" also has the connotation of bad luck, carelessness, sinfulness, or an act of God, which tends to exclude scientific approaches to this problem.

Although John Gordon's paper in 1949[5] led to a rash of so-called accidents studies with a long list of causative "agents" such as cars, guns, knives, medicines, stoves, rugs, stairs, etc., Gibson,[6] King,[7] and Haddon[8] suggest that the agent in all injuries is energy in one form or another (kinetic, chemical, thermal, radiation, electric) and that most previously identified agents were only vectors; excessive levels of energy exchange, or (as in drowning or poisoning) excessive interference with normal patterns of energy transfer, produces tissue damage.[9]

Against this background, the remainder of this paper will focus on the three main injury events for the elderly: fall injuries, motor vehicle injuries, and fires and burns. Injuries that are deliberately self-inflicted or that result from interpersonal violence are classified as intentional injury. In this paper the term injury will refer to unintentional injury. Although some data sources do not separate the two. For all injuries the quantity and quality of available epidemiologic data vary. The data problems are primarily of three types: numerator data (not denominator data) are usually available; exposure data are rarely available, and standardized reporting systems are minimal. An example of the first problem is that data on burn injuries come mainly from hospital-based studies. Studies on patients from hospitals tend to overrepresent the more severely injured; they exclude those with minor burns and those who die before arrival at the hospital. In addition to those numerator problems, the population base or denominator is usually unknown, so that one cannot make inferences about older people who are not burned. Exposure estimates to determine the "at risk time" are particularly important in motor vehicle related injuries but also in interpreting findings about place of injury. There is semantic confusion about the word "fall" and lack of agreement on types of falls. Even for road crashes there is no standard method required for reporting frequency and severity of nonfatal injuries. Although several well-designed studies have been reported, there is still very little epidemiologic data on the nonfatal consequences of injury to older people, and the data that are collected point to considerable underreporting. Mortality data are available from several sources, notably the National Safety Council and the National Center for Health Statistics.

FALLS

According to the National Safety Council,[3] persons 65 or older account for more than 70 per cent of the deaths due to falls, having both a higher than average number of reported falls and a high case fatality rate. More than half the deaths due to unintentional injury in people 65 and older are due to falls. The death rate due to falls dropped in all categories of people 65 and older from 1969 to 1978, in part because of changes in methods of classification. It has been commonly believed that death rates due to falls are higher in women than in men, probably because of awareness of the high *frequency* of falls in older women. In 1969, women of all races 75 and older did have higher rates; that was not true, however, for the 65 to 74 age group, where men of all races had substantially higher rates than women.[2] In 1969, 1975, and 1978, death rates for white men 75 and older were five times those for white men in the 65 to 74 group; parallel increase in the death rates

in nonwhite men was much smaller, perhaps explaining some of the crossover effect[3] seen in white men compared with nonwhite men 75 and older.[9]

In the Washington State Falls Study, Hongladarom[10] discovered that in 117 of 3949 deaths that came under the jurisdiction of the medical examiner in the state of Washington, the recorder mentioned a fall injury that preceded the death, but these cases were not coded to the E880 injury series. Over 91 per cent of the 117 were 65 or over. The investigator concluded that fall injury deaths are selectively underreported in the elderly.

An analysis of 1740 fall injury cases treated in the Yakima Valley Hospital Emergency Department during 1975, done as part of the Washington State Study, showed that more than 50 per cent of the fractures treated occurred to individuals over 40.[10] It appears that women have higher fall rates and not just greater frequencies because they outnumber men. In the Baycrest study of ambulatory institutionalized elderly,[11] the 68 per cent of residents who were women had 75 per cent of the falls. When older people fall, fracture (compared with laceration or head injury in children) is the most common treated injury. The femur is the most prevalent fracture site in old people who are hospitalized after falls, followed by the radius-ulna and the hip.[10] Another aspect of the magnitude of fall injuries is the disability incurred. When days of hospitalization were reviewed in the Yakima Valley Hospital, persons over 60 had 23.5 per cent of the fall injuries treated, but they had 1500 days of hospitalization, over 80 per cent of the total days of hospitalization.[10]

In a classic study, Sheldon[12] described the phenomenon of drop attacks, with no aura, no amnesia, and no tripping. Twenty-five per cent of the 500 falls he studied were drop attacks. In a study of 384 elderly people with fractured femurs, Brocklehurst et al[13] classified types of fall as tripping, loss of balance, drop attack, and other. Younger (65 to 74) patients were more likely to have tripped, while drop attack was more common in those 75 and older. Isaacs[14] concluded that the common factor in drop attacks was lack of any other obvious cause, and proposed that falls be classified according to the activity being undertaken, such as posture change, or walking.

In the Baycrest study,[11] the subjects, all over 65 (73 per cent were 75 to 90), were independent in activities of daily living and lived in a ten-story apartment building where life was similar to ordinary community living except that there were no stairs, and with individual dwelling units, no stoves. Forty-five per cent of the 441 subjects experienced at least one fall during the average observation period of 2.2 years. In 40 falls (6 per cent) there were fractures; in 353 (54 per cent) no injury was observed. The average number of falls for those who fell was 3.3. The overall rate of falls for both sexes was 668 per 1000 per year. Women experienced over 75 per cent of the falls, and in women the proportion of severe injuries increased with age. Twenty-two of 34 residents who experienced six or more falls died by the time the first study report was published, and in 12 of those subjects there appeared to have been a clustering of falls just prior to their death. Rodstein thought that "accidents in the aged may be manifestations of the onset of acute disease,"[15] and Hongladarom[10] found new health problems following the injury event in 6.8 per cent of the 1662 people (all ages) treated for fall injuries in the Yakima Valley Hospital study. While those figures cannot be readily evaluated because of lack of similar observations in appropriate controls, they might offer a clue to be pursued in future research.

The contribution of acute or chronic health problems to falls has been studied more, notably by Waller;[16,17] in a recent study of 150 persons 60 and older treated in an emergency department for injuries from falls, he found that 42 per cent of the treated falls were precipitated by an acute or chronic health problem, including misuse of alcohol. A word of caution is needed about studies of "cases" that come to medical attention, however; "cases" that do not come to medical attention are represented neither by control subjects nor those defined as cases. In a study of 71 elderly patients with fatal internal cerebral injury, Kirkpatrick and Pearson[18] concluded that "falls . . . were often precipitated by physical illness or ingestion of alcohol," but their report is more anecdotal than epidemiologic and does not include comparative data. In the Brocklehurst study,[13] older fracture patients had a higher prevalence of chronic brain syndrome, were in poorer physical state, and had skinfold thicknesses less than in same age controls; they also had more visual impairment. Younger patients had a higher prevalence of stroke than did comparable controls. "Sway," or postural instability, intermittent cardiac dysrhythmia, and impaired cerebrovascular perfusion have been implicated as internal causes of falls, but those findings accumulate from clinical, not controlled, observations (see Witte[19] for a good summary of physiologic factors related to falls). In several studies of falls or fractures in old people there was considerable medical comorbidity in the youngest patients in the series. Macdonald and Macdonald[20] in a study of relationships between barbiturate use and falls in 390 elderly women resulting in femoral fractures, found that of the 98 who fell between 10 P.M. and 6 A.M., 93 per cent were taking barbiturates. Only 6 per cent of the 217 women who fell between 6 A.M. and 2 P.M. were on barbiturates, and none of the 75 patients who fell between 2 P.M. and 10 P.M. took barbiturates. Similar results, though far less dramatic, were found when overall hypnotic use was considered.

There is some evidence that older people tend to fall in environments that are new to them. For example, in a study of 511 elderly men and women in a hospital, 134 fell during the 35 weeks of the study; over 60 per cent of the falls occurred during the first week.[21] Tinker[22] reports a similar finding—45 per cent of the falls in a 10-week pro-

TABLE 1
Death Rates Per 100,000 Population Due to Falls in Persons 65 and Older, by Race and Sex, United States, 1969, 1975, and 1978

Age Groups	1969	1975	1978
65–74 years			
White men	27.3	20.2	16.8
White women	17.1	11.9	10.6
Nonwhite men	24.1	22.6	17.1
Nonwhite women	16.2	10.1	7.4
Total	21.4	15.5	12.5
75+ years			
White men	136.0	108.8	97.4
White women	149.7	102.4	87.3
Nonwhite men	62.5	47.2	43.6
Nonwhite women	66.7	43.4	39.3
Total	138.5	99.8	86.7
Total in both groups	62.3	47.6	40.5

spective study occurred during the first week in a geriatric assessment unit.

Osteoporosis is of highest importance in the consideration of falls in late life. In a superb review of basic and clinical research on osteoporosis, Marx[22] states that as many as 190,000 elderly Americans suffer broken hips each year; one sixth die from complications, and many survivors are disabled. Osteoporosis, present in most of those victims, subjects bones to fracture by stresses that would not break normal bones. Marx cites Heaney, a leading investigator, who says, "About 25 percent of all white women have had one or more fractures by age 65." These fractures include, in addition to the broken hips, about 100,000 broken wrists every year. Vertebral fractures or crush fractures are a common feature of osteoporosis. The death and disability caused by osteoporosis is accompanied by other expenses: Riggs of the Mayo Clinic estimates that the cost of medical care for acutely ill elderly patients with broken hips is more than $1 billion each year.[23]

MOTOR VEHICLE CRASHES

There are 13.3 million licensed drivers 65 and older, representing 9.3 per cent of all licensed drivers in the United States.[3] The proportion of drivers 65 and older is rising in spite of tightened reexamination requirements in many states. In the past, the proportion of female drivers decreased sharply with age, but that pattern is changing. The number of older women who drive is increasing more rapidly than the number of older men who drive. It is anticipated that by 1985 there will be an increase (compared with 1972) of 129 per cent in the number of women over 64 who drive and an increase of only 18 per cent in men of the same age who drive.[24] Older drivers drive less. Planek[25] reports that "drivers in their fifties begin to show a decrease in annual miles driven that continues steadily in later years." Opposing conclusions have been drawn about the safety of older drivers. It is true that older drivers have a relatively small number of crashes; it is also true, however, that older drivers have a higher crash rate than any group except the under-25 age group if miles driven or exposure is taken into account. Further, when miles driven are considered, the elderly, especially those over 74, have high injury rates and extremely high fatality rates. Pedestrian deaths are substantial. Table 2 gives an indication of driving experience by age and exposure. Newer national data with mileage estimates are not available, but a 1976 study of 7581 Michigan drivers[26] showed crashes per million miles to be higher in the group 65 and older than in any other group except those under 25.

Men have disproportionately high death rates from motor vehicle crashes; they also have more injuries than women, though the differences are smaller. Waller[27] points out that while miles driven, type of driving, and alcohol ingestion might explain these gender differences partially, they are not a complete explanation. In 1978, nearly 6000 people 65 and older died of injuries caused by vehicular crashes. That represents 11.3 per cent of such fatalities for all ages and 25 per cent of all injury fatalities for people 65 and over. Thirty-six per cent of the injury deaths to people aged 65 to 74 were due to motor vehicles in 1978, and 18 per cent of the injury deaths to those 75 and over were motor vehicle fatalities.

The 55 mph national speed limit in 1973 was accompanied by lower motor vehicle death rates at all ages; in the subsequent five years the age groups over 65 were the only ones whose death rates did not increase. Data to adjust for miles driven are not available, and a variety of interpretations is possible, including inflation and the differential effect of high fuel prices on the elderly (further limiting their mileage), as well as the greater tendency of the elderly to be law-abiding.

Hogue[28,29] found characteristics of vehicular crashes in a Duke University study of 354 drivers aged 46 to 71, both men and women, to be similar to those reported for older drivers in other studies. Crashes occurred mainly in good weather in the daytime close to home and were attributed to errors of perception or judgment, not to high speed or alcohol. Waller et al.[30] report similar findings.

No association was found between vision, hearing, cardiovascular or musculoskeletal impairment, general functional status, life change, or coping resources and road crashes.

Features of normal aging that are important for driving include the general areas of sensory reception, neural processing and transmission, and motor response. Planek's literature review[25] indicates that the visual field begins narrowing in the late 30s, glare sensitivity increases beginning at about age 40, the need for increased illumination rises with age, and the rate of dark adaptation decreases

TABLE 2

Annual Mileage, Self Reported Accidents and Accident Rates, by Age for 1969

Age (Years)	Number of Drivers* (Millions)	Annual† Mileage	Mean Number of† Self-reported Accidents in the Last 3 Years	Accident Rate† (accidents per million miles)
16–20	11.0	9,685	0.720	25.1
21–25	11.8	12,252	0.496	13.7
26–30	10.8	13,687	0.364	9.0
31–35	10.2	13,821	0.310	7.6
36–40	10.7	15,366	0.237	5.2
41–45	11.3	12,434	0.202	5.5
46–50	10.5	12,824	0.246	6.5
51–60	16.5	11,753	0.182	5.2
61–70	9.8	8,390	0.173	6.8
70+	4.9	4,891	0.236	16.3
Overall averages		12,288	0.310	8.5

* National Safety Council, Accidents Facts, 1969

† Acquisition of Information on Exposure and on Non-Fatal Crashes, Vol. IV—Appendices, DOT 115-800 489, May 12, 71

Planek also cites research showing deficits in short-term memory, visual discrimination, and logical interpretation of stimuli, speculating that those deficiencies probably affect driving. Studies that have attempted to bridge the gap between laboratory findings and actual driving performance are scarce and have produced conflicting results.[31,32] Pastalan[33] studied a small number of elderly drivers in systematically designed driving situations, videotaping their performance and interviewing them afterward, then staff members were driven through the test route as front seat passengers wearing sympathetic-lens eyeglasses to simulate the typical vision of a person in the late 70s. Problems related to glare, color distortion, backlighting, and depth perception were described, as well as issues related to attention, information overload, and decision-making. Waller[34] notes that at least in part because of decrements of normal aging, many older drivers limit first their nighttime and high stress driving and then all driving.

Medical conditions common among the elderly have been studied in relation to driving, with conflicting results. Waller[35,36] found that drivers known to have diabetes, epilepsy, cardiovascular disease, alcoholism, and mental illness averaged twice as many crashes per 1,000,000 miles of driving as did control drivers with no known disease (data age adjusted). Crancer and McMurray,[37] on the other hand, found no excess of crashes among drivers with a heart disease license restriction; they did find higher crash rates for drivers with epilepsy, fainting, and other medical conditions at all ages. In the Baker and Spitz[38] study of 328 fatally injured drivers, arteriosclerotic heart disease was found by autopsy with similar frequency in those drivers who were at fault and those who were not. Waller[36] suggests that if we "want a true picture of the contribution of medical impairment to highway crashes we must include not only those relatively few persons who have obvious clinical episodes—whether fatal or not—behind the wheel" but others with the same medical condition who do not have such episodes.

It was noted earlier that older drivers who are injured have high fatality rates. Baker and Spitz[38] found that the proportion of drivers 60 or older was five times as high among those killed as among drivers who survived crashes and, further, that "delayed death" was more common among older drivers and was associated with less serious injuries than in younger drivers.

There were 9400 pedestrian deaths in 1979; over 20 per cent of those killed were 65 or older.[1] The death rate is much higher for males than females and slightly higher for nonwhites than whites. In a classic study of pedestrian injuries by Haddon and others,[39] those who were injured and killed were found to be, on the average, 10 years older than those injured who survived. Also, elderly people were more likely to be hit by cars than younger pedestrians even when exposure was similar.

The great majority of elderly pedestrians who are injured and killed are struck at intersections (children are much more likely to be struck between intersections).[3] Waller[34] noted that people cannot walk as fast after about the age of 60 when the center of gravity shifts forward and they look down as they walk. "Looking at traffic, and especially at traffic lights above eye level, is difficult for them. The current rules for cycling of traffic lights and pedestrian activated buttons," Waller writes, "assumes that people walk at 4 ft/second . . . that is not adequate for the elderly." Compounding these problems for elderly drivers and walkers is the great need for transportation among older people.[40,41]

THERMAL INJURIES

Thermal injuries include 1) burns and toxic inhalations resulting from conflagration or residential

fires and from clothing ignition, 2) contacts with hot surfaces or substances not involving open flames, including scalds; and 3) electrical burns. The first two categories are especially important for the elderly.

The very young, the elderly, and the poor are disproportionately burdened by burns. The incidence of new burns that require hospitalization is about 27 per 100,000 population each year, with peak rates of 74 for children under 5 and rates of 28, 37, and 41 for persons 75 to 79, 80 to 84, and 85 and older, respectively.[42] Barancik and Shapiro (cited in Feck et al.[42]) reported that "burn injuries treated in hospital outpatient departments or emergency rooms were about ten times as frequent as admissions for burns." The rate of burn injuries for both black and white males is higher at every age group, though the excess is somewhat less dramatic among infants and the elderly. Burns are a serious problem at any age, but in the elderly, the ratio of injury to death is least favorable. That is, old people are least likely to survive burns.

Linn, reporting findings from a Florida study of 1297 patients with recent burns, a judgmental sample of one third of the state's hospitals,[43] showed that the elderly in that sample had more severe burns than any other age group. Those 65 and over had a higher body surface area of burn (mean) than any other age group, and the per cent of hospitalized patients with full-thickness burns was much higher in the elderly group. In a much larger series than the Florida study, more than 35,000 hospitalized burn patients in the National Burn Information Exchange (NBIE) data set have contributed to "expected survival rates of patients of given age groups when admitted with a burn injury of specific magnitude and treated with the best medical resources available at the time and place."[44] These curves show that a person of 35 to 49 with 40 per cent burns has a chance of survival of about 80 per cent, while the same amount of burn in a person 60 to 74 years old has a survival rate of 30 per cent, and for persons over 74, the survival rate is approximately 6 per cent.

In the Florida study, the elderly had more complications from their burn injuries and longer hospital stays. Long[45] noted that elderly patients have great difficulty with infection after burns, apparently more so than younger persons with the same major burn injuries. There are no epidemiologic data on the consequences of burns for elderly persons who survive burns, but the physical and psychologic trauma of burn rehabilitation for even the most resilient age groups is common knowledge.

The most frequent types of thermal injury resulting in hospitalization of the elderly are scalds, injuries caused by flames, and contact burns. The New York Burn Study[46] found that residential fires or conflagrations caused more than 70 per cent of the burn deaths in upstate New York over a three-year period, but less than 4 per cent of hospital admissions for burn injury were due to conflagrat[illegible]. Obviously many people die from residential fires before they get to the hospital. For the United States as a whole, 1978 death rates for burns after age 64 are much higher in nonwhite men than nonwhite women; the burn mortality rates in nonwhite women are much higher than in white men, whose rates are much higher than those of white women. The same pattern holds in the over-74 group, in which rates are twice as high as those in the 65 to 74 age group. Since in the New York Burn Study elderly white women had nearly twice the conflagration injury rate as elderly white men (the injuries from conflagration for blacks were almost nonexistent), one might conclude that white women are most likely to escape death but not injury from residential fires. Scalds were responsible for 40 per cent of the burn injuries that resulted in hospitalization in the New York study,[46] and of those hot liquid burns, 196 of the 793 whose cause was known were tap water burns. Fifty per cent of those tap water burns occurred to the 7 per cent of the population under 5 years old, and 27 per cent occurred in the 15 per cent of the population 60 and older. Of the 188 tap water scalds in a known place of injury, 95 per cent occurred in the home. "Among the adults, the tap water burns often involved falling or losing consciousness in a bath or shower."[47] In a California burn center study of 1564 children and adults, scalds were the most common cause of burn injury in both groups.[48] The 15 per cent of the hospitalized population 60 and older had 22 per cent of the burn injuries involving clothing in the New York Burn Study.[42] Beverly[49] reports similar findings in data compiled by the U.S. Consumer Product Safety Commission and the National Bureau of Standards for 1966 through 1974. In addition, that study showed that matches, cigarettes, cigars, lighters, and so on were the most common source of fabric ignition for the elderly (accounting for almost 50 per cent of the injuries), and kitchen ranges ranked second (accounting for 28 per cent of fabric ignition injuries in the elderly). Sleepwear was implicated in 33 per cent of the fabric ignition injuries.

To attempt one explanation of the somewhat greater susceptibility of old people to thermal injury and their marked excess in mortality from burns is overly simple. Physical, social, and psychologic features of normal aging; disease; and possibly prejudice against old people might explain the data on burns presented above. Disease and pharmacologic management of disease may impair perception, limit judgment, and restrict mobility. Medications prescribed for elderly people for more than one condition, by more than one clinician, increase the risk of drug reactions; there are differences in absorption, distribution, metabolism, and excretion and in receptor site activity.[50] While not all old people are ill, two thirds of those over 64 report one or more chronic condition, and most experience some decrement in vision, hearing, smell, reaction time, and physical strength. Linn[43] pre-

ents information that thinning of the skin due to decline in epidermal cell proliferation and changes in the dermis might account for a more severe burn resulting from the same amount of external heat, as well as for poor healing. Even active healthy old people spend more time in their homes (where most burns to those over 65 occur), and many older citizens, especially women, live alone. Old people may fall against hot surfaces, have difficulty holding things without spilling, and have less sensitivity of nerve endings to hot substances. In addition an elderly person who is exposed to fire or hot water may not be able to remove himself until extensive trauma has occurred. Finally, preexisting cardiovascular, respiratory, or renal disease limits the reparative powers of the elderly. Is there bias in the treatment of elderly victims of injury? As noted earlier, in a study of emergency care in nonhighway injuries, Waller reported that people under the age of 30 preferentially received assistance by lay people and professionals.[31] Linn[43] showed with data from the Florida Burn Study that even though the elderly had more severe burns, there were almost no differences in the treatments received in any of the adult age groups, even when data on subjects who died were removed.

CONCLUSION

Injury is a nonrandom event of considerable consequence to older people. They have high death rates and high dysfunction and disability rates from falls, fires and contact with hot substances, and vehicular crashes to pedestrians and occupants of motor vehicles. Although deaths from falls have declined in recent years among the elderly, and deaths from motor vehicle crashes and thermal injury have not increased, prevention of all these injury events are important in reducing needless dependence and death and in improving quality of life for our elder citizens. Acceptable epidemiologic data describing nonfatal injury events is scarce. Better reporting of injury events may help us convince the public and professionals of the importance of the injury problem. But we already know enough to insist on effective injury prevention strategies. Geriatric professionals, health care providers in general, and lay people as well should have opportunities to learn about current approaches to injury control.

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REFERENCES

National Center for Health Statistics: Monthly Vital Statistics Report: Provisional Statistics, Annual Summary for the United States, 1979. 28, No. 13. DHHS Publication No. (PHS) 81-1120. Hyattsville, Md.: Department of Health and Human Services, 1980.

2. National Center for Health Statistics: Current Estimates from the Health Interview Survey, United States, 1978. DHEW Publication No. (PHS) 80-1551. Hyattsville, Md.: Department of Health, Education and Welfare, 1979.
3. National Safety Council: Accident Facts, 1980 Edition. Chicago: National Safety Council, 1980.
4. Waller JA: Current issues in the epidemiology of injury. Am J Epidemiol 98:72, 1973.
5. Gordon JE: Epidemiology of accidents. Am J Public Health 39:504, 1949.
6. Gibson JJ: The contribution of experimental psychology to the formulation of the problem of safety—a brief for basic research. *In* Behavioral Approaches to Accidents Prevention. New York, Association for the Aid of Crippled Children, 1961, pp 77-89 (Reprinted in large part, with discussion, in Haddon W Jr, Suchman EA, Klein D: Accident Research: Methods and Approaches. New York, Harper and Row, 1964, pp 295-304).
7. King BG: Accident prevention research. Public Health Rep 64:373, 1949.
8. Haddon W Jr: The changing approach to the epidemiology, prevention, and amelioration of trauma: The transition to approaches etiologically rather than descriptively based. Am J Public Health 58:1431, 1968.
9. Manton KG, Poss SS, Wing, S: The black/white mortality crossover: Investigation from the perspective of the components of aging. Gerontologist 19:291, 1979.
10. Hongladarum GC: Analysis of the causes and prevention of injuries attributed to falls: A study for the USPHS Center for Disease Control, Contract No. 200-76-0635. Olympia, Washington, 1977, pp 160-165, 36, 48, 67.
11. Gryfe CI, Amies A, Ashley, MJ: A longitudinal study of falls in an elderly population: I. Incidence and morbidity. Age Ageing 6:201, 1977.
12. Sheldon, JH: On the natural history of falls in old age. Br Med J 2:1685, 1960.
13. Brocklehurst JC et al: Fracture of the femur in old age: A two-centre study of associated clinical factors and the cause of the fall. Age Ageing 7:7, 1978.
14. Isaacs B: Are falls a manifestation of brain failure? Age Ageing 7 (Suppl):97, 1978.
15. Rodstein M: Accidents among the aged: Incidence, causes, and prevention. J Chron Dis 17:515, 1964.
16. Waller JA: Nonhighway injury fatalities: I. Roles of alcohol and problem drinking, drugs, and medical impairment. J Chron Dis 25:33, 1972. II. Interaction of products and human factors. J Chron Dis 25:47, 1972.
17. Waller JA: Falls among the elderly—human and environmental factors. Accident Anal Prev 10:21, 1978.
18. Kirkpatrick JB, Pearson J: Fatal cerebral injury in the elderly. J Am Geriatr Soc 26:489, 1978.
19. Witte NS: Why the elderly fall. Am J Nurs 79:1950, 1979.
20. MacDonald JB, MacDonald ET: Nocturnal femoral fracture and continuing widespread use of barbiturate hypnotics. Br Med J 2:1483, 1977.
21. Sehested P, Severin-Nielson T: Falls by hospitalized elderly patients: Causes, prevention. Geriatrics 32:101, 1977.
22. Tinker GM: Accidents in a geriatric assessment department. Age Ageing 7:196, 1978.
23. Marx JL: Osteoporosis: New help for thinning bones. Science 207:628, 1980.
24. US Department of Transportation: Unpublished memorandum, 1975.
25. Planek TW: The aging driver in today's traffic: A critical review. *In* Waller PF (ed): Aging and Highway Safety: The Elderly in a Mobile Society. North Carolina Symposium on Highway Safety 7. University of North Carolina Highway Safety Research Center, Chapel Hill, 1972.
26. Lee MEH, Glover MF, Eavy PW: Differences in trip attributes of drivers with high and low accident rates. *In* Accident Causation. Warrendale, PA, Society of Automotive Engineers, Inc, 1980, p 1.
27. Waller JA: Injury as a public health problem. *In* Last JM (ed):

Rosenau's Preventive Medicine and Public Health. 11th ed. New York: Appleton-Century-Crofts, 1980
28. Hogue CC. Coping resources, stress, and health change in middle age. Unpublished doctoral dissertation. Chapel Hill: University of North Carolina, 1974
29. Hogue CC. Epidemiology of injury in older age. In Haynes SG, Feinleib M (eds). Epidemiology of Aging. Bethesda, Maryland, National Institutes of Health, 1980
30. Waller PF, House EG, Stewart JR. An analysis of accidents by age. Chapel Hill, Highway Safety Research Center, University of North Carolina, 1977
31. Burg A. The relationship between vision test scores and driving record: General findings. Report No. 67-24. Los Angeles, University of California, Department of Engineering, 1967
32. Crancer A. Comprehensive vision tests and driving record. Report No. 028. Olympia, Washington Department of Motor Vehicles, 1967
33. Pastalan LA. Street and highway environments as perceived by the elderly driver. Ann Arbor, University of Michigan-Wayne State University, 1977
34. Waller JA. Medical and related issues in driving by elderly persons. Paper presented at the Seventh North Carolina Conference on Highway Safety, Raleigh, November 12, 1980
35. Waller JA. Chronic medical conditions and traffic safety. N Engl J Med 273:141, 1965
36. Waller JA. Hunting the evasive solutions to medical impairment and highway crashes. J Chron Dis 30:393, 395, 1977
37. Crancer A, McMurray L. Accident and violation rates of Washington drivers with medical licensing and driving restrictions. Report No. 007. Olympia, Washington Department of Motor Vehicles, 1967
38. Baker SP, Spitz W. Age effects and suicide evidence [illegible] ease in fatally injured drivers. JAMA 214:1079, 1970
39. Haddon W Jr. A controlled investigation of the characteristics of adult pedestrians fatally injured by motor vehicles in Manhattan. J Chron Dis 14:655, 1961
40. Duke Center for the Study of Aging and Human Development. OARS Methodology. A manual. 2nd ed. Durham, North Carolina, Duke University Medical Center, 1978
41. Branch LG. Vulnerable Elders. Washington, D.C., Gerontological Society Monograph, 1980
42. Feck G, Baptiste MS, Tate CL Jr. An Epidemiologic Study of Burn Injuries and Strategies for Prevention. Atlanta, Georgia, Center for Disease Control, 1978
43. Linn BS. Age differences in the severity and outcome of [illegible]. J Am Geriatr Soc 28:118, 122, 1980
44. Praiss IL, Feller I, James, MH. The planning and organization of a regionalized burn care system. Med Care 18:202, [illegible]
45. Long JM. Burns in geriatric patients. In Artz CP, Moncrief JA, Pruitt BA Jr (eds). Burns: A Team Approach. Philadelphia, WB Saunders Company, 1979
46. Feck G, Baptiste MS. The epidemiology of burn injury in [illegible] York. Public Health Rep 94:312, 315, 1979
47. Baptiste MS, Feck G. Preventing tap water burns. Am J Public Health 70:727, 1980
48. Jay KM et al. Burn epidemiology. A basis for burn prevention. Trauma 17:943, 1977
49. Beverly EV. Reducing fire and burn hazards among the elderly. Geriatrics 31:106, 1976
50. Krupka LR, Vener AM. Hazards of drug use among the elderly. Gerontologist 19:90, 1979
51. Waller JA. Emergency care for fatalities from injury and [illegible] in the non-highway setting. J Trauma 13:54, 1975

APPENDIX A

No. ____

THE GERIATRICS TRAINING INSTITUTE FOR PUBLIC HEALTH PROFESSIONALS
TRAINING EVALUATION

Please complete the biographical information sheet below. This information will be maintained confidentially. It will provide Institute staff with an analysis of participants' strengths, interests, and needs as a part of the evaluation process.

Name: _____

Title: _____

Agency: _____

Address: _____

_____

_____

_____

Telephone Number: _____

Professional Affiliation: (Check all that apply)

____	M.D.	____	B.S.N.
____	M.P.H.	____	M.S.:
____	M.S.W.	____	Ph.D.:
____	M.H.A.	____	Other:
____	Dr.P.H.		
____	R.N.		

Years of formal education (beyond high school): _____

I have worked in the field of public health for:

_____ Do not work in the field of public health

_____ Less than one year

_____ One to five years

_____ More than five years

I have worked on geriatrics-related issues for:

_____ Less than one year

_____ One to five years

_____ More than five years

Current agency responsibilities (geriatrics-related and other):

_____

_____

_____

_____

Geriatrics-related training in which you participated during 1989:

_____

_____

_____

_____

Professional journals you routinely read for geriatrics-related articles:

_____ American Journal of Public Health

_____ Journal of the American Medical Association

_____ The New England Journal of Medicine

_____ Other: _____

_____

_____

____ Science

____ Gerontology and Geriatrics Education

____ The Gerontologist

What do you hope to learn at this Institute?

_____

_____

_____

How do you plan to use the information/skills learned?

_____

_____

_____

For whom do you/will you provide geriatrics-related training?

_____

_____

_____

EVALUATION FORM

Directions: On the following pages are the titles of each Institute session and of each topic addressed by the session. Please answer each question concerning the topics addressed and the training materials. Also, respond to the additional questions recorded for each session.

Please complete this evaluation form as you would a journal: Record your perceptions and feelings throughout the three-day period, rather than waiting until the end of the Institute.

Thank you for your assistance.

No. _____

MODULE #1: TUESDAY MORNING

DEMOGRAPHICS/BIOLOGY OF AGING/EPIDEMIOLOGY

1. Topics: For each topic, check all statements that apply.

Topic	Information was accurate and pertinent	Information I knew prior to attending this session	Information that would be useful for my employment colleagues	Level of difficulty: Too basic	Just right	Too advanced
a. Demography						
b. Biology of Aging						
c. Epidemiology						

2. Training Strategies and Resources: Rate the effectiveness of the training strategies employed; check all statements that apply.

Strategy/Resource	Appropriate for the topic	Appropriate for my style of learning	Useful for me to use in training others
a. Lecture Segments			
b. Biology of Aging Exercise			
c. Life Span/ Expectancy			
d. Impact of Biology of Aging Studies: Scenarios of the Future			
e. Preventive Strategies for Cardiovascular Disease			
f. Overheads			
g. Handouts			

3. Total time for session:

____ about right ____ too long ____ too short

A. Amount of time for lecture:

____ about right ____ too long ____ too short

B. Amount of time for trainee participation:

____ about right ____ too long ____ too short

C. Balance between lecture and trainee participation:

____ about right ____ too much lecture ____ too much participation

4. Additional training on this topic you would like to see added to this session, if any:

_____

_____

5. Information/training strategies you would like to see changed, if any:

_____

_____

6. Other suggestions for improving this module:

_____

_____

No. _____

MODULE #2: TUESDAY AFTERNOON

PSYCHOSOCIAL ISSUES

1. Topics: For each topic, check all statements that apply.

Topic	Information was accurate and pertinent	Information I knew prior to attending this session	Information that would be useful for my employment colleagues	Level of difficulty: Too basic	Just right	Too advanced
a. Society's Perceptions of the Elderly						
b. Ageism Debunked						
c. Communications between Physicians and Patients						
d. Emotional Responses of the Elderly						
e. Responses to Crises						
f. Victimization						
g. Planning a Program for Public Health Professionals						
h. Assessing Mental Health Support Systems for the Elderly						

2. **Training Strategies and Resources: Rate the effectiveness of the training strategies employed; check all statements that apply.**

Strategy/Resource	Appropriate for the topic	Appropriate for my style of learning	Useful for me to use in training others
a. Lecture Segments			
b. Values Clarification Exercise (Ageism)			
c. Physician/Patient Role Plays			
d. Small Group Discussions: Planning a Program for Public Health Professionals			
e. Large Group Discussion: Assessing Mental Health Support Systems			
f. Overheads			
g. Handouts			

3. Total time for session:

____ about right ____ too long ____ too short

A. Amount of time for lecture:

____ about right ____ too long ____ too short

B. Amount of time for trainee participation:

____ about right ____ too long ____ too short

C. Balance between lecture and trainee participation:

____ about right ____ too much lecture ____ too much participation

4. Additional training on this topic you would like to see added to this session, if any:

_____

_____

5. Information/training strategies you would like to see changed, if any:

_____

_____

6. Other suggestions for improving this module:

_____

_____

_____

No. _____

MODULE #3: WEDNESDAY MORNING

FINANCING

1. **Topics:** For each topic, check all statements that apply.

Topic	Information was accurate and pertinent	Information I knew prior to attending this session	Information that would be useful for my employment colleagues	Level of difficulty: Too basic	Just right	Too advanced
a. Health Care Expenditures and Trends						
b. The Medicare Program						
c. Private Insurance						
d. The Medicaid Program						
e. Financing Long-Term Care						

2. **Training Strategies and Resources:** Rate the effectiveness of the training strategies employed; check all statements that apply.

Strategy/Resource	Appropriate for the topic	Appropriate for my style of learning	Useful for me to use in training others
a. Lecture Segments			
b. Discussion: Problems and Improvements for Medicaid			
c. Overheads			
d. Handouts			

3. Total time for session:

____ about right ____ too long ____ too short

A. Amount of time for lecture:

____ about right ____ too long ____ too short

B. Amount of time for trainee participation:

____ about right ____ too long ____ too short

C. Balance between lecture and trainee participation:

____ about right ____ too much lecture ____ too much participation

4. Additional training on this topic you would like to see added to this session, if any:

_____

_____

5. Information/training strategies you would like to see changed, if any:

_____

_____

6. Other suggestions for improving this module:

_____

_____

best copy available

No. _____

MODULE #4: WEDNESDAY AFTERNOON

CONTINUUM OF CARE

1. Topics: For each topic, check all statements that apply.

Topic	Information was accurate and pertinent	Information I knew prior to attending this session	Information that would be useful for my employment colleagues	Level of difficulty: Too basic	Just right	Too advanced
a. Demographics: Implications for Health Care						
b. Components of Geriatric Care Service Systems						
c. Overview of Long-Term/Chronic Care						
d. Models for Long-Term/Chronic Care						
e. Continuum of Service Programs						

2. Training Strategies and Resources: Rate the effectiveness of the training strategies employed; check all statements that apply.

Strategy/Resource	Appropriate for the topic	Appropriate for my style of learning	Useful for me to use in training others
a. Lecture Segments			
b. Demographics Self-Test			
c. Discussion: Components of the Continuum of Care			
d. Brainstorming: Continuum of Services			
e. Small Group Activity: Continuum of Service Programs			
f. Overheads			
g. Handouts			

3. Total time for session:

____ about right ____ too long ____ too short

A. Amount of time for lecture:

____ about right ____ too long ____ too short

B. Amount of time for trainee participation:

____ about right ____ too long ____ too short

C. Balance between lecture and trainee participation:

____ about right ____ too much lecture ____ too much participation

4. Additional training on this topic you would like to see added to this session, if any:

_____

_____

5. Information/training strategies you would like to see changed, if any:

_____

_____

6. Other suggestions for improving this module:

_____

_____

_____

No. _____

MODULE #5: THURSDAY

HEALTH PROMOTION

1. **Topics:** For each topic, check all statements that apply.

Topic	Information was accurate and pertinent	Information I knew prior to attending this session	Information that would be useful for my employment colleagues	Level of difficulty: Too basic	Just right	Too advanced
a. Demographic Framework						
b. Research Findings and Planning Initiatives						
c. Conceptual Framework						
d. The Principles of Program Planning, Implementation, and Evaluation						
e. Best Practices: Consideration of Existing Programs						
f. Special Considerations for Developing Health Promotion Strategies						
g. Health Education Techniques						

2. **Training Strategies and Resources:** Rate the effectiveness of the training strategies employed; check all statements that apply.

Strategy/Resource	Appropriate for the topic	Appropriate for my style of learning	Useful for me to use in training others
a. Lecture Segments			
b. Group Discussion: Causes of Death and Possible Interventions			
c. Self Test: Personal Health Habits Questionnaire			
d. Group Discussions: Functional Independence and Health Promotion Activities			
e. Group Discussion: Definitions of Health Promotion			
f. Brainstorming: Health Department Roles in Health Promotion			
g. Small Group Activity: Designing Health Promotion Programs (Nutrition, Injury Prevention, and Exercise)			
h. Group Discussion: Community Resources for Health Promotion Programs			
i. Self Test and Discussion: Developing Health Promotion Programs for Minority Populations			

Strategy/Resource	Appropriate for the topic	Appropriate for my style of learning	Useful for me to use in training others
j. Discussion: Effective Techniques in Presenting Health Education to Health Professionals			
k Overheads			
l. Handouts			

3. **Total time for session:**

____ about right ____ too long ____ too short

A. **Amount of time for lecture:**

____ about right ____ too long ____ too short

B. **Amount of time for trainee participation:**

____ about right ____ too long ____ too short

C. **Balance between lecture and trainee participation:**

____ about right ____ too much lecture ____ too much participation

4. **Additional training on this topic you would like to see added to this session, if any:**

_____

_____

5. **Information/training strategies you would like to see changed, if any:**

_____

_____

6. **Other suggestions for improving this module:**

_____

_____

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